



# The syntax–semantics interface in systemic functional grammar: Halliday's interpretation of the Hjelmslevian model of stratification

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## ABSTRACT

The aim of this article is to explore how exactly the idea of distinguishing different coding levels in language has been theorized in different stages of Hallidayan systemic functional grammar (SFG), focusing on its view of the syntax–semantics interface. This is done by juxtaposing the levels of the Hallidayan model and the various components of Hjelmslev's model of stratification, on the basis of Halliday's re-interpretation of Hjelmslev's theory at various stages in the development of SFG. In this exploration, specific attention is paid to two important theoretical aspects of the design of Hjelmslev's and Halliday's models: (1) the different *dimensions* along which semiotic distinctions are made in the two models, i.e. dimensions along which language, as a semiotic system, is 'partitioned' into different components in order to explain and describe it; and (2) the *semiotic relationships* between these strata and components as defined by Hjelmslev and re-interpreted by Halliday, viz. the relations of 'manifestation', 'exponence', 'realization' and 'instantiation'.

It is shown that Halliday's multi-stratal model blurs fine-grained distinctions which play a crucial role in Hjelmslev's theory, and that Halliday's concept of 'semantics' remains underspecified in comparison to Hjelmslev's model. By taking Halliday's model of language as a basis, but 're-connecting' it to the detailed semiotic framework laid out by Hjelmslev, by which it was originally inspired, I argue that in the three different stages of SFG, three different types of 'semantics' have been highlighted.

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## 1. Introduction<sup>1</sup>

### 1.1. Aim of this article

One of the most central theoretical aspects of systemic functional grammar (henceforth SFG) is its view of language as a *stratified* semiotic system, i.e. a system consisting of multiple strata, linked through the semiotic relationship of realization. Four such strata are recognized: context is seen as realized in semantics; semantics in lexicogrammar; and lexicogrammar in phonology or graphology. Within SFG, this stratified model of language is usually represented by means of four cotangent circles, following Martin and Matthiessen (1991), as shown in Fig. 1.

When Halliday introduces the notion of stratification in the 1970s (Halliday, 1976a:30), he explains that it is motivated by Hjelmslev's concept of 'stratification', and the differentiation between semantics and lexicogrammar is theorized in terms of

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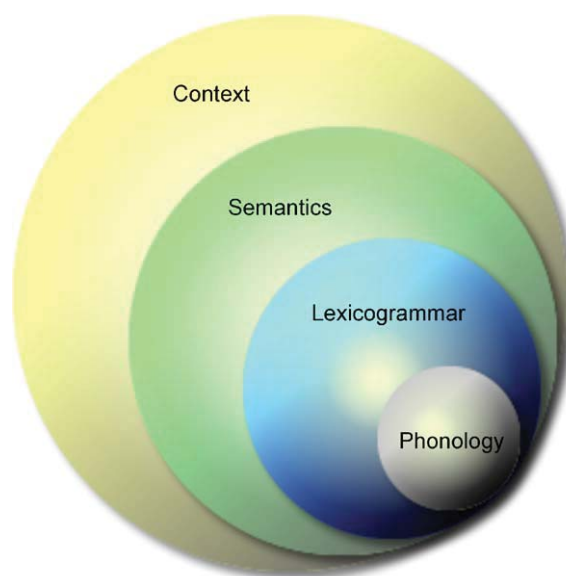


Fig. 1. Stratification.

an 'internal stratification' of the Hjelmslevian *content plane* of language.<sup>2</sup> However, Halliday does not explain in what way exactly this 'internal stratification' should be interpreted in relation to the detailed semiotic relationships which characterize Hjelmslev's model.

The aim of this article is to explore how exactly the idea of different coding levels has been theorized in different stages of SFG, focusing on its view of the syntax–semantics interface (or, in SFG, the interface between *lexicogrammar* and semantics). This will be done by juxtaposing the strata of the Hallidayan model and the various components of Hjelmslev's model, on the basis of Halliday's references to Hjelmslev's theory at various stages in the development of SFG. In this exploration, specific attention will be paid to two important theoretical aspects of the design of Hjelmslev's and Halliday's models: (1) the different *dimensions* along which semiotic distinctions are made in the two models, i.e. dimensions along which language, as a semiotic system, is 'partitioned' into different components in order to explain and describe it (as we will see, strata are just one type of such semiotic components); and (2) the *semiotic relationships* between these strata and components as defined by Hjelmslev and Halliday, viz. the relations of 'manifestation', 'exponence', 'realization' and 'instantiation'.

It will be shown that Halliday's multi-stratal model blurs fine-grained distinctions which play a crucial role in Hjelmslev's theory, and that Halliday's concept of 'semantics' remains underspecified in comparison to Hjelmslev's model. By taking Halliday's model of language as a basis, but 're-connecting' it to the detailed semiotic framework laid out by Hjelmslev, by which it was originally inspired, I will argue that in three different stages of SFG, three different types of 'semantics' have been highlighted.

### 1.2. Halliday's interpretation of Hjelmslev: different stages in SFG

In order to explore the conception of stratification in SFG in relation to Hjelmslev's theory, various stages in the development of SFG as a linguistic theory will be distinguished. Table 1 gives an overview of these stages, together with the major themes and the links with the Hjelmslevian model that have been specified by systemic functional linguists at each stage.

Stage I (1950–1970) represents a preliminary, preparatory stage in SFG, when the term 'systemic functional' linguistics/grammar was not yet used. In this stage, Halliday developed a number of models of language, of which the most well-known is his 'scale-&-category' model, named after his (1961) "Categories of a theory of syntax", in which language is theorized in terms of a number of categories and 'scales'. This model will play an important role in the exploration in this article, because in his theoretical 1961 article, Halliday defines a number of semiotic dimensions along which he makes distinctions (his 'scales'), and in so doing, he explicitly refers to components of Hjelmslev's semiotic theory, especially the *distinction between form and substance*.

Two of the most important theoretical themes in SFG are introduced at this stage, viz. the idea of representing linguistic categories in systems (which already appeared in Halliday, 1961), i.e. the *systemic* dimension of later SFG, and the idea that language is organized in terms of a limited number of functional components (which appeared towards the end of this stage,

<sup>2</sup> Stratification is not the only dimension of SFG for which Halliday reports to have been inspired by Hjelmslev. For an interesting exploration of similarities and differences between the two models of language in relation to a number of theoretical issues besides stratification, see Bache (2010).

**Table 1**

Stages in SFG and Hjelmslevian themes per stage.

Stage in SFG	Important themes in the development of the model	Aspects of Hjelmslev's theory which inspired these themes
Stage I 1950–1970	Scale-&-category model: distinction between <i>levels</i> of language	Preliminary adaptation of Hjelmslev's terms <i>form</i> and <i>substance</i>
Stage II 1970–1987	Stratification & metafunctions	Stratified model of language is theorized in terms of an <i>internal stratification of the content plane</i>
Stage III 1987 onward	Stratified model of language, theorized in terms of <i>metaredundancy cycles</i> Exploration of semantic models of language J.R. Martin: exploration of <i>discourse semantics</i> and different levels of <i>context</i> ("planes")	<i>Connotative semiotic</i> (based on the relation between <i>content</i> and <i>expression</i> )

in Halliday, 1967a,b). A general feature of Stage I, which is important to the aims of this article, is that the notion of *stratification* was not yet part of the model, although, as we will see, the concept of distinguishing different coding levels, and the related semiotic notion of 'realization' was already introduced (in Halliday, 1966).<sup>3</sup>

Stage II (1970–1987) is marked by the introduction of the notion of 'stratification', or more precisely, the '*internal stratification*' of the Hjelmslevian *content plane* of language (most clearly in Halliday, 1973/1971) into the levels of 'lexicogrammar' and 'semantics'. The lexicogrammar–semantics interface is an important theme throughout Stage II, and although it is generally recognized in theoretical discussions that a differentiation between lexicogrammar and semantics is necessary in order to account for language, the link between the two is seen as essentially fluid, and the semiotic nature of a 'semantics', as distinct from 'lexicogrammar', has never been explicitly specified.

In this stage 'systemic functional grammar' develops as a linguistic model in its own right. The cornerstones of the design of the model, on a theoretical and a descriptive level, are *stratification* (the idea that language consists of different coding levels) and *metafunctional diversity* (the idea that language is organized in terms of three metafunctions). These two dimensions, which together make up the *functional* basis of SFG, are theorized as cross-cutting and, as will be further explained below, very much interrelated.

In Stage III (1987 onwards), the theme of stratification again plays a central role in theoretical discussions and in the further development of the design of the model. Stratification is now interpreted, more abstractly, in terms of 'metaredundancy cycles' (Halliday, 1987), a notion from the theory of semiotic systems as dynamic open systems. Through this abstraction, and also through the commitment of SFG to accounting for language 'from above', starting from 'meanings' that are encoded, more and more attention is paid to the development of explicitly semantic models of language. In the development of one such model, discourse semantics, Martin (1992) explains the place of a discourse semantics in the overall stratified model in terms of Hjelmslev's notion of a *connotative semiotic system*. As we will see in this article, this Hjelmslevian interpretation will also provide a clue to defining other types of 'semantics' in SFG.

### 1.3. The structure of this article

This article is organized as follows. In section 2, the semiotic components and relationships as identified in Hjelmslev's theory of stratification in language are introduced. Section 3 gives a brief overview of the 'standard' model of stratification in SFG, and also introduces some additional aspects of the design of SFG which will be relevant in the further discussion. In section 4, we will explore how the Hallidayan concept of stratification has been explained, with reference to Hjelmslev's framework, in various stages of the development of SFG. After this exploration, in which some problems of Halliday's interpretation of Hjelmslev will be identified, we will turn to a detailed juxtaposition of the two linguistic models, in order to give a definition of what 'semantics' is in SFG, in precise, Hjelmslevian terms (section 5). In the final section of this article (section 6) the major findings are summarized, and general tendencies are highlighted in the changing conception of what a 'semantics' is throughout the development of SFG.

## 2. Hjelmslev's model of language as a semiotic system

### 2.1. Introduction

The aim of this section is to give a succinct overview of Hjelmslev's semiotic model of stratification in language,<sup>4</sup> the model on which Halliday based his view of language as stratified. The major aspects of Hjelmslev's model that we will focus on are represented in Fig. 2. This figure can be used as a visual guide to the discussion in the present section.

Hjelmslev's notion of 'stratification' is part of a very intricate and detailed framework called 'glossematic' theory, which he himself sees as an 'algebra' (Hjelmslev, 1963/1943:80). It is based on two types of semiotic distinctions, which were

<sup>3</sup> For a more detailed exploration of how Halliday's scale-&-category model evolved into 'systemic functional grammar', see Taverniers (submitted for publication).

<sup>4</sup> For a more elaborate discussion of Hjelmslev's model along the lines presented in this section, see Taverniers (2008).

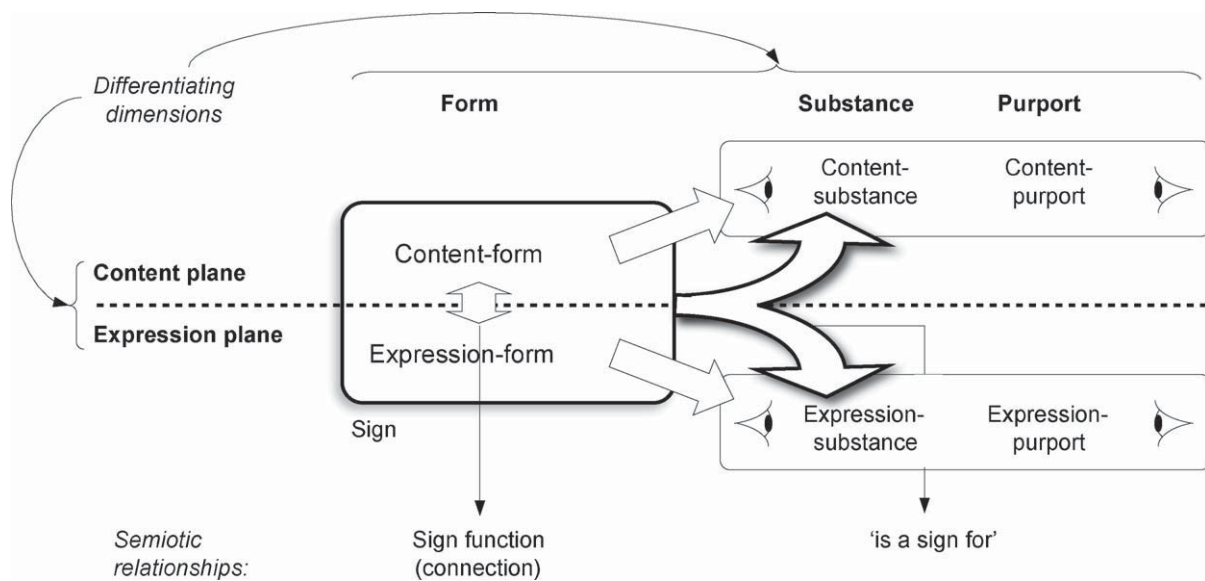


Fig. 2. Components and relations in Hjeltmslev's semiotic model of language.

originally formulated by de Saussure: (1) content–expression, and (2) form–substance–purport. In Fig. 2, these two dimensions are shown vertically and horizontally, respectively. The content–expression contrast, and the form–substance–purport triad indicate two distinct dimensions, in Hjeltmslev's model, along which different components, or different aspects (facets) of a semiotic system can be distinguished for purposes of theorization and description. In this article I will refer to such a dimension in the design of a linguistic model as an *aspectualizing dimension* (or 'dimension of differentiation'/ 'differentiating dimension').

In the brief presentation of Hjeltmslev's model, we will pay special attention to the role and interaction of his two aspectualizing dimensions, i.e. the way in which they differ and are complementary to one another, and, as already indicated above (section 1.1), the semiotic components which are defined in each of these dimensions, and the semiotic relationships between these components.

## 2.2. The content–expression contrast

The major Hjeltmslevian distinction presented in *Prolegomena to a Theory of Language* (Hjeltmslev, 1963/1943), is that between content and expression—a distinction which is parallel to the Saussurean contrast between *signifié* and *signifiant*. This contrast refers to the two sides of a linguistic sign: "the sign is an entity generated by the connexion between an expression and a content" (Hjeltmslev, 1963/1943:47). 'Content' and 'expression' are referred to as the two "mutually opposing" functions of the "sign function" (Hjeltmslev, 1963/1943:60). Therefore, they can only be defined in relation to one another. The relationship of "connexion" (henceforth connection) between them is one of "mutual solidarity" (Hjeltmslev, 1963/1943).

Apart from this general definition of the content–expression dimension, in his *Prolegomena* Hjeltmslev further specifies this contrast on two levels. On a primary level, content and expression are characterized as 'thought' and 'expression', and the content and expression sides of language in general are referred to by Hjeltmslev as *planes* (Hjeltmslev, 1963/1943:59). This is completely parallel to de Saussure's conception of the linguistic sign, who refers to the two sides *le plan des idées* and *le plan des sons*. A distinction between a 'conceptual' and a 'phonic' (expression) side of language (to use Thibault's (1997:59) terms) has become well entrenched in linguistics in general.

Hjeltmslev's more abstract interpretation of the content–expression dimensions deserves more attention. On a more abstract level, in Hjeltmslev's view, an interaction between content and expression and hence, an emergence of 'signs', does not only arise through a relationship between thought and sound. Rather, it is a relationship which can recur, at various levels of abstraction, throughout various types of semiotic systems, including language. One of the most unique aspects of Hjeltmslev's semiotic theory is his conception of the possibility of a semiotic system having *multiple sign layers*.

Hjeltmslev distinguishes two types of semiotic systems which have multiple sign layers, viz. a *connotative semiotic*<sup>5</sup> and a *metasemiotic*. In contrast to these more complex systems, the term *denotative semiotic* is used to refer a 'simple' system based on a basic interaction between a content and an expression. The distinction between these three kinds of 'semiotics' in Hjeltmslev's framework is shown in Fig. 3.

<sup>5</sup> Hjeltmslev uses the term *semiotics* to refer to a 'semiotic system'. I will use the term *semiotic*, because this is the term which has been adopted with this sense in SFG, and also because *semiotics* is now commonly used to refer to the discipline (the study of signs) (for the latter, Hjeltmslev uses the term *semiology*).

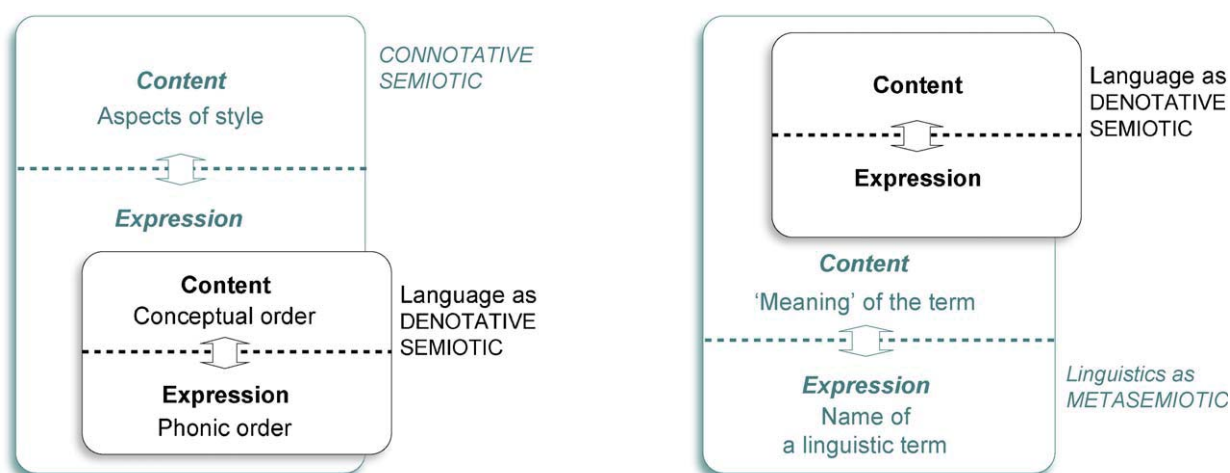


Fig. 3. The layered structure of a Hjelmslevian connotative semiotic and metasemiotic, in contrast with the simple content–expression relationship in a denotative semiotic.

A *connotative semiotic* is a system whose expression plane is itself a semiotic system consisting of a content layer and expression layer (i.e. a ‘simple’ denotative semiotic). A *metasemiotic* is the logical counterpart of a connotative semiotic: a metasemiotic has as its content plane a denotative semiotic. In this framework, then, a *denotative semiotic* can more generally be defined as a semiotic neither of whose planes is a semiotic (Hjelmslev, 1963/1943:114).

Hjelmslev gives a number of illustrations of non-denotative semiotics which are based on language. Linguistics can be seen as a metasemiotic, because it takes linguistic signs as contents, and assigns labels to them, i.e. a linguistic sign is linked to a linguistic term (cf. Fig. 3) (Hjelmslev, 1963/1943:119–120). A linguistic connotative semiotic is a system in which the expression plane is a language, a linguistic sign, or a particular linguistic usage (all of these are in themselves denotative systems), and in which the content plane consists of aspects pertaining to different types of styles, tones, or varieties of language (Hjelmslev, 1963/1943:125). The model presented in his *Prolegomena* is mainly intended as being programmatic for a more full-fledged linguistic theory called glossematics, and in this vein, Hjelmslev points out that the task of an exhaustive semiotic study is, besides studying language as a denotative semiotic, also to analyse geographical, historical, political, social, and psychological aspects which are ‘connoted’ by language in various types of contexts. Because this more abstract interpretation of the content–expression distinction by Hjelmslev refers to semiotic systems in which different orders of sign functions emerge, I will refer to this as Hjelmslev’s *second-order interpretation of the content–expression dimension*. As we will see below, this abstract concept of the content–expression duality will play an important role in exploring and further clarifying the systemic functional concept of stratification.

### 2.3. The form–substance–purport triad

We can now turn to Hjelmslev’s second type of distinction, viz. the form–substance–purport triad. As shown in Fig. 2, in Hjelmslev’s framework this dimension is complementary to, or cross-cuts, the differentiation between content and expression: both content and expression can be further analysed into form, substance and purport.<sup>6</sup> Hjelmslev’s conception of form and substance reiterates de Saussure’s earlier distinction between *forme* and *substance*. The third term in the triad, purport, corresponds to de Saussure’s unformed *pensée* and *son*. By assigning a general term to this component, ‘purport’, and in this way highlighting the general nature of the form–substance–purport differentiation as a second dimension pertinent to both content and expression, Hjelmslev offers a more abstract semiotic view than de Saussure. Let us consider the nature of the form–substance–purport distinction within the content plane and within the expression plane.

Within the content plane, purport refers to unformed and unanalysed thought: *content-purport* is an amorphous thought-mass.<sup>7</sup> In a preliminary characterization presented for the sake of the argument, Hjelmslev characterizes content-purport as that part of the content of a sign which is common across different languages. Hjelmslev illustrates this by reference to colour terms: content-purport is the factor of ‘meaning’ (“the thought itself”, Hjelmslev, 1963/1943:50),<sup>8</sup> which, for instance, English *green*, French *vert* and Welsh *glas* have in common; i.e. it is the colour ‘itself’. However, ‘purport’ *in itself* cannot be labelled: as soon as such a labelling is attempted, for instance, by saying that the purport in the above examples is ‘green’, the

<sup>6</sup> It will be noted that Hjelmslev’s abstract logical framework, or algebra, and hence his semiotic refinement of the original Saussurian distinctions, is essentially based on a postulated parallelism between a content plane and an expression plane in language. Kuryłowicz (1960/1949:16) refers to this feature of glossematics as “isomorphism”.

<sup>7</sup> Hjelmslev’s content-purport corresponds to what Kant has called *noumenon* or “*Ding an Sich*” (see Thibault, 1997:168, who describes de Saussure’s *pensée* in relation to Kant’s *noumenon*).

<sup>8</sup> It is significant to note, in this respect, that Hjelmslev’s original Danish term for purport is *mening* (cf. Hjelmslev, 1963/1943:153).



purport is being *formed* in one way or another, i.e. it is being viewed from the perspective of a particular language (in this case English from which the label ‘green’ is derived)—and in this sense it is being viewed as a *content-substance*.

The difference between content-purport and content-substance is essentially one of perspective, as visualized in Fig. 2 through two opposing eyes. Content-substance is purport viewed from a particular language. It is an area of purport (which in itself is an ‘amorphous mass’—cf. above) which appears, *qua area*, as the result of the specific way in which a particular language ‘carves up’ or ‘forms’ this purport. A content-substance is therefore dependent on a ‘forming’ process in a language.

Content-form, then, can only be defined in relation to the sign function (Hjelmslev, 1963/1943:54), as characterized above in terms of the interaction between content and expression. As such, the content-form is that which, together with an expression-form, constitutes a unity which functions as a sign in a particular language.

Within the expression plane of language, a similar distinction can be made between form, substance and purport. *Expression-purport* is characterized, parallel to content-purport, as an amorphous, unanalysed sequence of sounds, a “vocalic continuum” (Hjelmslev, 1963/1943:52). An *expression-substance* is a particular pronunciation of a sound sequence in a specific language, e.g. [‘riŋ] in English, by an individual person. An *expression-form* is a sound sequence interpreted within a particular language, in terms of the phonemes by which this language ‘carves up’ and selects from a complete range of possible human vocalizations. The phonemic (formal) nature of an expression-form is determined by its being linked to a content.

In explaining the form–substance relationship in the expression plane, Hjelmslev refers to the established distinction between phonology (the system of phonemes, i.e. form) and phonetics (substance). With respect to the content plane, he refers in a rather implicit way (only in drawing a parallel with ‘phonetics’ in the expression plane—cf. Hjelmslev, 1963/1943:79, 96, 125) to ‘content-substance’ as ‘semantics’. This ‘semantics’ is understood in an ontological/phenomenological sense (Hjelmslev, 1963/1943:79), or in a contextual sense (“contextual meanings”—Hjelmslev, 1963/1943:82). As we will see further on in this article, Hjelmslev’s component of ‘content-substance’, and the way in which this can be seen as a ‘semantics’ on the basis of its position in the triad form–substance–purport, will be important in explaining Halliday’s interpretation of Hjelmslev’s model. ‘Content-form’ is not linked by Hjelmslev to a specific component of linguistics, and it has been interpreted in different ways by linguists ever since it was introduced.<sup>9</sup> Although it is often seen as containing (an aspect of) meaning, Hjelmslev intended content-form to be only form. As Trabant (1987:95) summarizes, “It [content-form, *mr*] is only the framework, the net, the constellation of differences”. Hjelmslev is notoriously abstruse, especially in relation to the nature of content-form.<sup>10</sup> This is probably one of the reasons why his grand theory of glossematics, which has as its object ‘pure form’, never made it into real life, and why ‘content-form’ received such varied interpretations by other linguists, many of which fail to recognize its purely formal nature.

The relationship between form and substance in general is also described by Hjelmslev as a relationship between a schema and a particular usage, or between a constant and a variable. The term he uses to refer to this relationship is manifestation (cf. also Fig. 2, where this relationship is visualized): a linguistic schema (a form) is manifested in a usage (a substance). A schema is a constant by virtue of the sign relationship, i.e. by virtue of the connection between a content and an expression. Within the content plane as well as the expression plane, a schema (i.e. content-form and expression-form, respectively) is manifested in a particular usage (i.e. a content-substance and an expression-substance). Compared to the schema, this usage is a variable, since one schema (a constant) can be manifested in various possible usages.

Similarly to his treatment of the distinction between content and expression, Hjelmslev also provides a second, more abstract interpretation of the form–substance–purport triad. Just like the difference between substance and purport is one of perspective, as we have seen, the whole triad also including form is a type of semiotic differentiation which recurs along a continuum and which represents different perspectives: “[w]hat from one point of view is “substance” is from another point of view “form”” (Hjelmslev, 1963/1943:18). I will refer to this more abstract view of the form–substance–purport distinction as Hjelmslev’s secondary interpretation of the triad (see also Taverniers, 2008 for further explication).

#### 2.4. ‘Stratification’ as based on the interaction between two differentiating dimensions

We have seen that the three notions in the form–substance–purport triad are intrinsically defined in relation to one another: purport provides the substance for a form (Hjelmslev, 1963/1943:52). None of the three aspects has any ‘existence’ (or ‘relevance’ to linguistic analysis) except through its role in relation to the others. Only form has an extra defining facet. The role of form in the triad is defined in relation to the sign function: both content-form and expression-form exist by interacting with a form on the opposite plane (an expression-form and a content-form, respectively), and by constituting a linguistic sign together with it. Consequently, it is ‘form’ which has a privileged status with regard to the linguistic sign as defined in terms of content and expression.

Focusing on the relevance of the form–substance–purport triad in relation to the interaction between content and expression, Hjelmslev refines the definition of the two functives in the sign: they “can now be precisely designated as the

<sup>9</sup> For instance, Hjelmslev’s content-form has often been interpreted as ‘grammar’ (or lexicogrammar or syntax) (e.g. Householder, 1971:127). We will see in section 5 that this is also the prevailing interpretation in SFG and its offshoots (in Semiotic Grammar (cf. McGregor, 1997:49), and in the cognitive-functional school inspired by Kristin Davidsen (e.g. Heyvaert, 2003:18)).

<sup>10</sup> The difficulties with the interpretation of content-form have been attributed to Hjelmslev conflating morphology and lexicology (Lamb, 2004/1966:155), and failing to recognize or rejecting (Pittman, 1959:199) the distinction between morphology and syntax, or the distinction between “the lexical and the grammatical sphere” (Coseriu and Geckeler, 1980/1974:33).

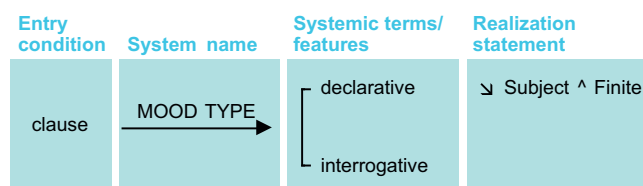


Fig. 4. Elements of a system.

content-form and the expression-form" (Hjelmslev, 1963/1943:57). Thus, the specific relation of *form* to the sign function, and the relationship between form and substance–purport, offers an extra perspective for characterizing the sign. Besides being defined as a ‘connection’ between two poles, content and expression, a sign is also a sign *for something*, and this ‘something’ is characterized in Hjelmslev’s theory in terms of the form–substance–purport relationship:

The sign is, then – paradoxical as it may seem – a sign for a content–substance and a sign for an expression–substance. It is in this sense that the sign can be said to be a sign for something. (Hjelmslev, 1963/1943:58)

This second type of semiotic relationship, ‘be a sign for’, which is based on the aspectualizing dimension of form–substance–purport, is highlighted in Fig. 2.

In his article “La stratification du langage”, Hjelmslev refers to the differentiation in terms of the two dimensions described above—“la double distinction entre *forme* et *substance* et entre *contenu* (*signifié*) et *expression* (*signifiant*)” (Hjelmslev, 1959/1954:44) as a *stratification* of language. The model, summarized in Fig. 2, based on the interaction between two aspectualizing dimensions, will therefore be referred to here as Hjelmslev’s model of stratification. It is important to emphasize that Hjelmslev’s stratification model is based on an *interaction* between the content–expression and form–substance–purport distinctions, and it is the sign, as the most central component in a theory of language (a glossematic), which forms the ‘hinge’, as it were, between these two dimensions.

### 3. Stratification in the ‘standard’ SFG model

In this section we will briefly consider the concept of ‘stratification’ in the current ‘standard’ version of the SFG model.<sup>11</sup> The aim is twofold. (1) By specifying the relevance and the theoretical location of the notions of stratification and realization in the overall design of the systemic functional model, we will be able to formulate in precise terms the indeterminate nature of the syntax–semantics interface in SFG. (2) In the overview of the standard SFG model, other systemic functional terminology will be introduced (especially in relation to the metafunctions and the notion of the system network) that will be important in the remainder of this article.

#### 3.1. The central role of realization in the stratified model and the system network

We have already considered (cf. section 1.1) the basic ingredients of the stratified model of SFG: four strata linked through the semiotic relationship of realization. In this model, realization refers to the relationship of (en)coding: for instance, semantics is encoded in lexicogrammar, which in turn is encoded in phonology (or graphology). The entrenched version of stratification in current SFG is based on vertical orientation in which the ‘higher’ strata are the more abstract ones. The notation used for abbreviating the realization relationship is therefore a downward slanting arrow: context  $\searrow$  semantics  $\searrow$  lexicogrammar  $\searrow$  phonology.

While realization lies at the heart of the stratified model, it also plays an important role in the major representational tool in SFG, the *system network*. The system network (which lies at the basis of the ‘systemic’ aspect of SFG) formalizes the basic tenet in SFG that language is a meaning potential from which choices are made in particular contexts, and thus represents the paradigmatic dimension of language. It is the single most important tool, in SFG, in descriptions of linguistic structure.

Fig. 4 shows a simplified version of a network of MOOD. Each system consists of a point of origin or an entry condition (the environment in which a choice is made), the system name (indicated in small caps) and a number of systemic features or options which are available at that point. In a full linguistic description, each option is accompanied by a *realization statement*: this is a specification of a syntagmatic structure by which the particular feature is encoded in the language under investigation. For example, the option [declarative] is realized by a syntagm in which the Subject precedes the Finite (the symbol “^” indicates precedence), or: [declarative]  $\searrow$  Subject ^ Finite. The relationship between the systemic features (the potential, paradigmatic aspect of language) and the realization statements (the syntagmatic realization of features) will be referred to as the ‘system–structure’ interaction.

Fig. 4 is an simplified illustration of a system with just two features, but a full system network may have multiple dependent sub-systems (further, more fine-grained, or more ‘delicate’, distinctions after an option has been selected) and

<sup>11</sup> SFG has different varieties, the two most important of which have come to be referred to as the Sydney and Cardiff versions. By the mainstream, standard version of SFG I mean the Sydney version, represented in, for instance, Martin (1992), Halliday and Matthiessen (1999, 2004).

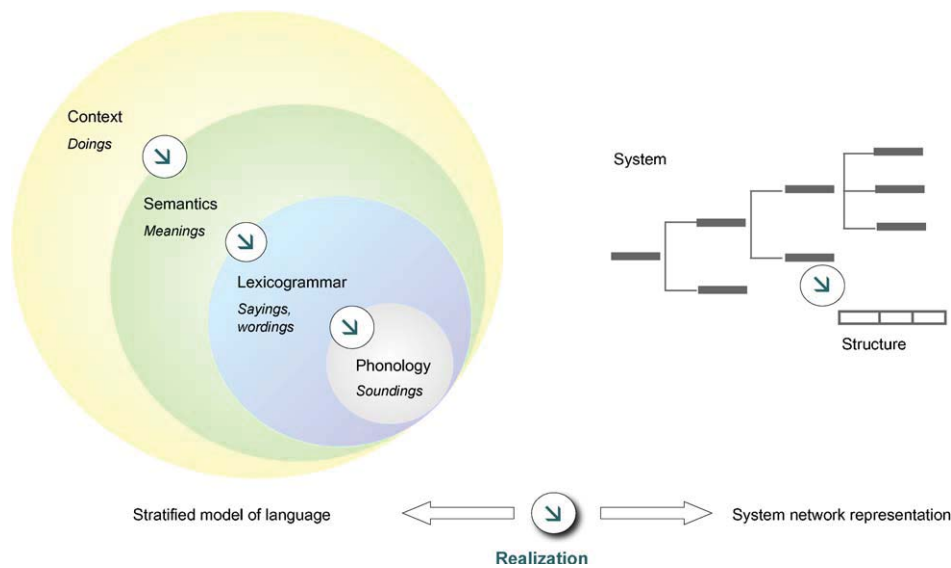


Fig. 5. The central role of the semiotic relationship of realization in the stratified model and in the system network representation.

interlocking sub-systems (also called simultaneous systems: these represent simultaneous choices for a particular environment and are grouped with a round brace, as we will see below).

The central importance of realization in the stratified model and the concept of the system network is visualized in Fig. 5. On the basis of Fig. 5 we can already formulate one important question for the investigation in this article. Since semantics and lexicogrammar are seen as the two content strata which are internal to language ('context' also has to do with meaning but is in part extralinguistic), and the system network in SFG is the tool with which to represent how meaning is created, the question is: is the *realization* relationship between system and structure equivalent to that between semantics and lexicogrammar?

'Realization' is recognized by Halliday (cf. Halliday et al., 1992:64) as one of the most fundamental concepts in SFG, and, at the same time "probably the most difficult single concept in linguistics" (Halliday et al., 1992:62). It will be clear at this point that, in the comparison between Halliday's model of stratification and Hjelmslev's theory, the semiotic relationship of 'realization' will play a crucial role. It is therefore useful, before we start this exploration, to consider in more detail the interaction between stratification and the system network in the standard model of SFG. This interaction can only fully be understood if we also take into account the second important 'functional' theme of SFG, the notion of 'metafunctions' of language.

### 3.2. Stratification and the metafunctions

In SFG, language is seen as being organized around three complementary metafunctions: *ideational*, *interpersonal* and *textual*. The idea of 'metafunctional diversity' (or metafunctional complementarity) is a hypothesis about the organization of language on two levels: (1) on a macro level, it is a hypothesis about the way in which language, as a semiotic system, plays a role in human life in general; (2) on a more specific, linguistic level, it is a hypothesis about the way in which linguistic structure is organized.

Of the three metafunctions, the ideational and interpersonal are the most fundamental, while the textual metafunction is of a second-order nature vis-à-vis the other two. The ideational metafunction pertains to content-related aspects of language; it serves to *construe* our experience of reality (both internal and external experience). The interpersonal metafunction, on the other hand, refers to speaker-related aspects of language; it is concerned with the *enactment* of roles (social as well as speech roles) which are taken up by speaker and hearer in a linguistic interaction. The textual metafunction pertains to the creation of texture, i.e. cohesive and coherent stretches of discourse which have relevance in a particular situation. The second-order role of the textual metafunction lies in the fact that it enables the integration of ideational and interpersonal meanings by providing them with a texture, i.e. by *presenting* them as texts.

In SFG, the metafunctions are seen as permeating the whole linguistic system (or, at least, the content side of language),<sup>12</sup> and following Matthiessen (1993), they can be represented as cross-cutting the dimension of stratification, as shown in Fig. 6.

The metafunctional hypothesis originated in Halliday's work at the end of Stage I, and was motivated by a number of theoretical-descriptive contexts. The most important of these motivations for the discussion in the present article, and also

<sup>12</sup> However, for an application of the metafunctional hypothesis to the expression side of language, i.e. to the phonological stratum, see Cléirigh (1998).



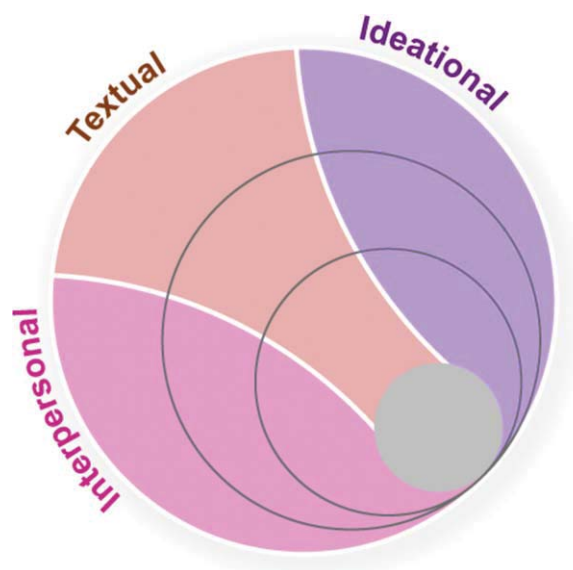


Fig. 6. The metafunctions spread across the content strata of language.

the motivation that has remained important in further theoretical discussions throughout later stages of SFG, is that of lexicogrammatical studies. Focusing on lexicogrammar, the three metafunctions appear as “three main areas of syntactic choice” (Halliday, 1967b:199). In systemic terms, this means that the recognition of metafunctional components of language is based on a clustering of systems into three more or less distinct groups, or, in other words, the overall paradigmatic organization of language is subdivided into three large networks. These networks, which have become the basis of descriptive grammar throughout SFG, are: TRANSITIVITY (comprising options which have to do with type of verb, participant roles and certain types of adverbial modification of the event construed; hence ideational), MOOD (comprising different mood types and options pertaining to the expression of modality; hence interpersonal), and THEME (comprising options having to do with the organization of Theme and Rheme in texts; hence textual).

Importantly, the systems of TRANSITIVITY, MOOD and THEME are *simultaneous* systems for the clause within the overall network of a language. This means that, taking the clause as entry point, options from each of these three networks are relevant, and hence, for a description of a clausal syntagm, structures which are the outcome of selections from the interpersonal, ideational and textual systems (the realization statements) have to be combined. Thus, in SFG a syntagm is an ‘integrated structure’ consisting of three parallel tiers of functional structure, each of which represents the outcome of a ‘path’ through a metafunctional network, as shown in Fig. 7 (the functional layers are usually supplemented by an extra layer, shown at the bottom of the diagram, specifying grammatical classes of the constituents in the syntagm). As we will see below, the notion of the ‘integrated structure’ has played an important role in the motivation of the stratified model of language.

Having considered the role of the metafunctions in relation to the system network and the description of linguistic structure in SFG, we are now in a better position to return to the theme of the syntax–semantics interface in SFG, since, as already indicated above, it is in terms of the interaction between the notions of ‘stratification’ and the metafunctionally organized ‘system network’ that the indeterminate nature of this interface in SFG can be described. The problem of this indeterminacy was recognized in SFG towards the end of Stage II, i.e. at a stage when the notion of ‘stratification’ was

*But luckily he has had very little trouble meanwhile.* (BNC KAR 177)

	But	luckily	he	has	had	very little trouble	meanwhile.
Grammatical functions	Ideational			Actor	process: material	Range	Circ: time
	Inter-personal			Mood			Residue
	Conjunctive Adjunct	Mood Adjunct	Subject	Finite	Predicator	Complement	Circ. Adjunct
	Textual			Rheme			
Grammatical classes	Textual Theme	Interpersonal Theme	Ideational Theme				
	Conjunction	Adverbial group	Nominal group	Verbal group	Nominal group	Adverbial group	

Fig. 7. Three parallel tiers of functional structure in the description of the syntagm in SFG.

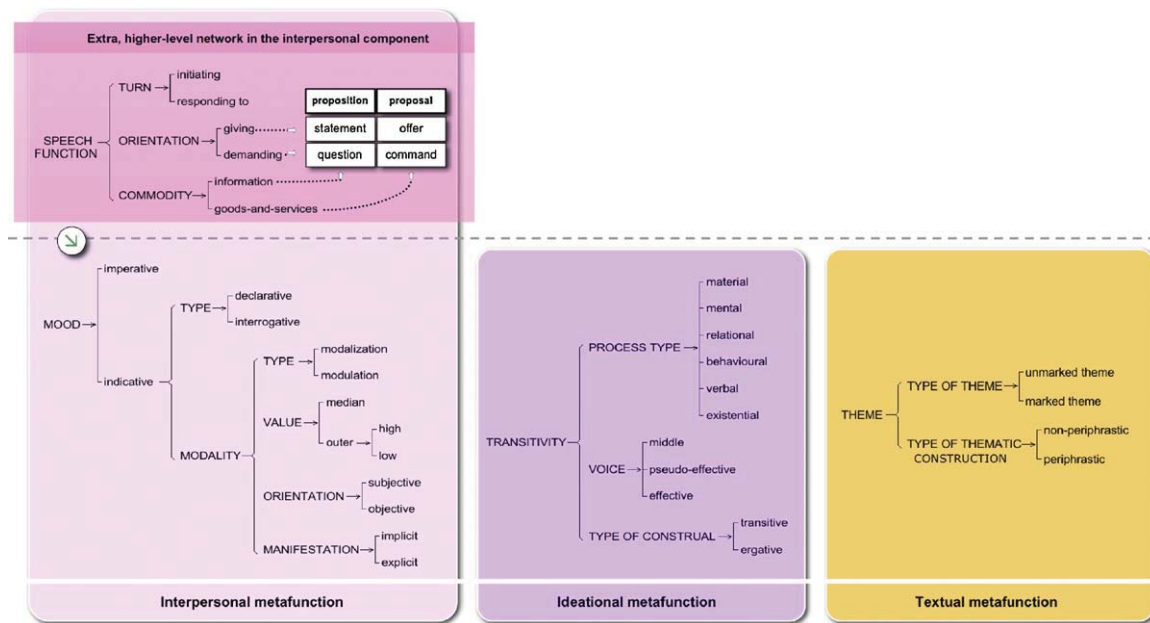


Fig. 8. The higher-level interpersonal system of SPEECH FUNCTION in relation to the systems of MOOD, TRANSITIVITY and THEME (simplified networks).

well-entrenched within SFG and the metafunctional system networks had become gradually more refined through descriptions of individual languages (mainly English at that time).

One of the factors lying at the basis of important theoretical questions as to the nature of stratification has been the development, initiated by Halliday (1984), of a model of the interpersonal component with an extra, higher-level ('semantic?') network in addition to the network of MOOD. In order to account for the interpersonal organization of language, Halliday (1984) proposes a system of SPEECH FUNCTION whose options define different types of speech acts. The system starts with the very general types of SPEECH FUNCTION termed [statement], [question], [command] and [offer], and in the ideal, more fully-developed version, more fine-grained types of speech act, such as threat, promise, vow, and so on should be defined by adding more delicate types of features. Importantly, this network does not have its own realization statements accompanying the systemic features, but is seen as being realized through selections in the 'lower' interpersonal system of MOOD, as shown in Fig. 8. For example, the SPEECH FUNCTION [command] may be realized by the MOOD type [imperative]. Since its introduction by Halliday (1984), a study in which the usefulness of this extra system for describing interpersonal aspects of linguistic structure is amply illustrated, the system of SPEECH FUNCTION has become part and parcel of the 'standard' version of the SFG model.

It can now be seen how this conception of the interpersonal metafunction (as distinct from the ideational and textual metafunctions—see Fig. 8) heightened awareness of theoretical questions about the nature of stratification towards the end of Stage II. Halliday and Fawcett (1987) raise the very specific question of which strata can or should be represented by system networks, or, in other words, what the stratal nature is of the (well-known) networks of TRANSITIVITY, MOOD and THEME—i. e. are they semantic or lexicogrammatical? If they represent the semantic stratum, in what sense is the higher-level interpersonal network of SPEECH FUNCTION to be interpreted? Halliday (1985) raises the more general question of how many (content) strata can or should be recognized. As we will see below, this question opened up possibilities for exploring other, 'extra' 'higher-level' systems in Stage III of SFG.

#### 4. The interpretation of Hjelmslev's 'stratification' in three stages of SFG

##### 4.1. Stage III: stratification and metaredundancy

In the subdivision proposed in this article, the start of a third stage of SFG in 1987 is based on the re-conception of 'stratification' in relation to a concept of 'metaredundancy' by Halliday (1987), and the shift towards more 'higher-level' semantic or semantically-oriented systems in linguistic descriptions in SFG—a shift which will be explained here in relation to the notion of 'metaredundancy'.

Since the mid 1980s, and most explicitly since the appearance of Halliday (1987), the concepts of stratification and realization have been linked to notions from the theory of dynamic complex systems,<sup>13</sup> especially under the impetus of work by Lemke (1984). In this theory, contextualizing relations in general are theorized in terms of a concept of 'redundancy'.

<sup>13</sup> The theoretical framework referred to here goes under different names, including *dynamics*, *system theory*, *complexity theory*, *chaos theory*, and the more semiotically oriented labels *information theory* and *cybernetics*.

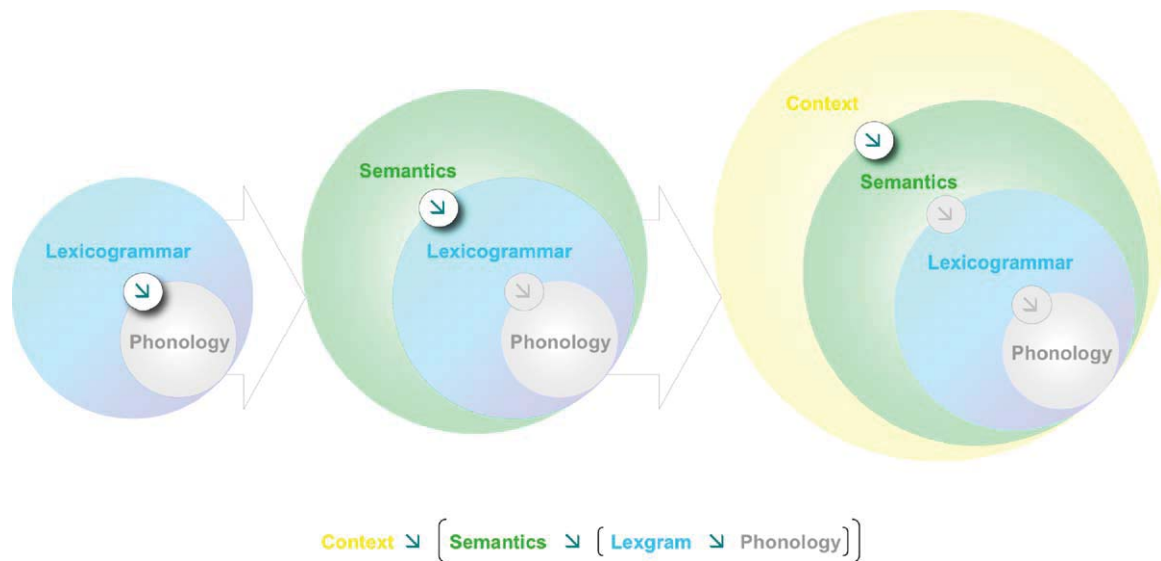


Fig. 9. Metaredundancy relationships between strata: accumulative realization cycles.

'Redundancy' is defined in a neutral way (i.e. without the negative connotations of the use of this word in ordinary language): "two things are 'redundant' when they go together in a predictable way" (Lemke, 1995:168). The notion of 'predictability' or probability is an important aspect of this definition. Two levels in a system are in a redundancy relationship when options in one level tend to co-occur in a predictable way with options in another level. It is precisely the relationship of redundancy between its subcomponents which enables a system to function as a dynamic, open, complex system, i.e. a system which persists through time by constantly changing in interaction with its environment. In other words, it is the flexible relationship of redundancy between the levels of a system which makes it possible for that system to be 'metastable': in the evolution of the system through time, the probabilities which characterize the relations between its sub-levels are constantly changing.

By interpreting the relations between the different strata of language as contextualizing relations (in which a higher level is regarded as forming the context for a lower level), the system of language can according to Lemke (1984) be conceived of as a hierarchy of *metaredundancy* relations.<sup>14</sup> In this framework, then, the realization cycles between strata are interpreted as *accumulative*: the prefix *meta-* in 'metaredundancy' indicates that options in one level do not simply co-occur with options in another, separate level; rather, one level is metaredundant with a *combination* of two or more other levels. This accumulative conception of realization is shown in Fig. 9.

In the theory of dynamic complex systems, 'redundancy' is linked to predictability or probability: two levels within a system are in a redundancy relationship when options in one level tend to co-occur with options in another level.

The notion of 'metaredundancy' was first introduced into SFG by Lemke (1984), but it was Halliday (1987) who spelt out the connection between realization and metaredundancy. Halliday (1987:140) points out that "the relationship of metaredundancy is the general relationship whose manifestation in language we are accustomed to referring to as 'realization'". As an equivalent of the term 'realize', which refers to the coding relationship between the linguistic strata ('semantics' realized in 'lexicogrammar' and so on), he proposes the term 'redound with': phonology redounds with lexicogrammar, the relationship between phonology and lexicogrammar metaredundants with semantics, and so on.

It is important to point out that the notion of '(meta)redundancy' differs in at least two ways from 'realization'. First, 'redound with' is a symmetrical process. Whereas realization as a concept refers to an interstratal coding relationship in general, the name of the process indicating this relationship suggests a directionality: it is either 'realizes' or 'is realized in/by' (cf. also Halliday et al., 1992:24). Second, 'metaredundancy' is in general a more dynamic concept than realization. Because it is defined in terms of probabilities, metaredundancy characterizes the relationship between the strata of a language system as potential ones: it refers to coding correspondences between strata which are likely or predictable (i.e. which have a high degree of (statistical) probability), implying that the overall probabilities of these interstratal relationships can change in different environments and through time.

Through its symmetrical and dynamic nature, the concept of 'metaredundancy' provides a more abstract re-interpretation of the earlier notion of 'realization'. In Stage III of SFG, a number of (distinct) models have been developed in different frameworks, which can be seen as the (indirect) result of this abstract re-interpretation of stratification. An exploration of this recent development in SFG would lead us too far from the aim of this article. I will only briefly describe here three such models which have relatively recently been proposed within SFG. On the basis of these descriptions we will

<sup>14</sup> As pointed out by Lemke (1995:169), the notion of 'metaredundancy' was introduced by Bateson (1972).

be able to characterize a general tendency in SFG with regard to its interpretation of ‘stratification’, and, more importantly, to specify the consequences for its interpretation of the syntax–semantics interface.

From the 1990s onwards, three types of separate ‘semantic’ networks have been proposed in SFG, which are regarded as complementary to the ‘standard’ networks of TRANSITIVITY, MOOD and THEME. The three models, which have been developed more or less independently by different groups of systemic functional linguists, pertain to the three metafunctions: *appraisal theory* deals with the semantics of the interpersonal metafunction, Halliday and Matthiessen’s (1999) semantic model focusses on what they call the *ideation base* of language, and Martin’s (1992) theory of *discourse semantics*, although in a general sense it pertains to each of the three metafunctional components, in another sense is based on the textual metafunction.

*Appraisal theory* (cf. Iedema et al., 1994; Martin, 1997, 1999, 2000a,b; White, 1998, 2000) is a model set up to account for evaluative language in a systemic way. In this model various types of ‘evaluative language’ are linked in one common semantic space, which is modelled by means of a (very large) semantic system network of APPRAISAL consisting of various subsystems (e.g. GRADUATION: [non-gradable]: [scale up]/[scale down]; ATTITUDE: AFFECT > [surge of emotion]/[predisposition]). The options in this network are seen as being realized by various different types of lexicogrammatical means, for instance the option [unhappiness] within the system AFFECT can be realized by a behavioural process (*whimper, cry, wail*) or certain types of adjectives (*down, sad, miserable*).

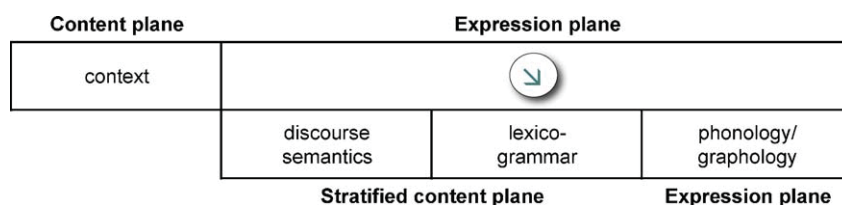
Halliday & Matthiessen’s book *Construing Experience through Language* is concerned with ideational semantics (Halliday and Matthiessen, 1999:2), or what they refer to as the “ideation base” of language. Their aim is to model the ideation base of language in systemic terms, i.e. to present it as a system network. The network has as its entry point “phenomenon”, which is regarded as the most general type of ideational category (Halliday and Matthiessen, 1999:48). Its primary options are [element], [figure] (a configuration of elements, i.e. a configuration consisting of an event and elements (participants) participating in this event) and [sequence] (a complex of figures, i.e. a complex of clauses). Whenever they refer to the lexicogrammatical encoding of features in their semantic network, Halliday and Matthiessen emphasize the notion of ‘typicality’. For example, a [process] (a sub-type of [element] in the semantic network) is typically construed in the lexicogrammar as a verb (e.g. *communicate*), but it may also be construed by a noun (e.g. *communication*). The non-typical realization is called non-congruent or metaphorical.

In *English Text*, finally, Martin (1992) develops a *discourse semantics*, i.e. a semantics that focusses on “text-size” rather than “clause-size” meanings. His model is based on a reinterpretation of various cohesive resources of language (Martin describes it as an elaboration of Halliday and Hasan’s (1976) *Cohesion in English*), and comprises four systems: CONJUNCTION (dealing with various types of conjunctive relations, e.g. [external] vs. [internal]; [temporal], [additive], etc.), IDEATION (which focusses on the cohesive function of sense relations, e.g. [hyponymy], [synonymy], and the like), IDENTIFICATION (which deals with the tracking of participants through reference patterns) and NEGOTIATION (which is an elaboration of the ‘standard’ system of speech acts).

What the three models briefly described above have in common is the fact that they organize (by grouping them into systems) linguistic resources (i.e. types of structures and lexemes), as types of realizations of semantic options, in a different way than how they are modelled in the ‘standard’ (lexicogrammatical?) networks of TRANSITIVITY, MOOD and THEME. The basis of this organization is in each case a common function that these resources fulfil on a higher, ‘semantic’ level: they express a particular type of ATTITUDE (appraisal theory); they encode a particular type of [phenomenon], e.g. a [process] (ideation base); or they form a cohesive thread in a text (discourse semantics). It can be seen that each of these ‘semantic models’ in SFG has been made possible through a more abstract interpretation of stratification in terms of metaredundancy. In a framework of metaredundancy, the number of levels needed to account for the way in which a system is able to function in a larger context is open. The semantic systems of APPRAISAL, the ideation base and discourse semantics each model an interface of probabilities in a particular type of environment or context (a particular function of language): these systems group certain linguistic resources because they tend to co-occur, to ‘redund with’, a specific ‘meaning’ on a higher level, i.e. the expression of an evaluative meaning, the construal of a type of [phenomenon], or the creation of cohesion. In addition to their occurrence in these higher-level systems, the resources realizing the options in these systems (already) occur in the more specific systems, where they are defined more specifically in terms of their constructional difference with competing resources (e.g. an [imperative] mood in the network of MOOD is defined in terms of its difference from an [interrogative] or a [declarative] mood). It is in this sense that the new models proposed in the 1990s are not seen as replacements of the (earlier) networks of TRANSITIVITY, MOOD and THEME, but rather as complementary.

Apart from the very abstract explanation in terms of metaredundancy, the recent developments in SFG leading to semantic models do not provide a more solid theoretical basis for clarifying the syntax–semantics interface. More specifically, the link between the system–structure relation (which is incorporated in the ‘standard’ networks of TRANSITIVITY, MOOD, and THEME) and the relation between (a) ‘semantics’ and lexicogrammar remains unexplained. In the following section we will focus on Stage II of SFG, when the notion of stratification, and more precisely a differentiation between a semantics and lexicogrammar was first proposed by Halliday on the basis of an interpretation of Hjelmslev’s theory of language.

The upshot of these recent models in SFG might be that different types of ‘semantics’ are necessary in order to account for language in all its aspects, and this will also be the conclusion we will draw after juxtaposing the SFG model(s) with Hjelmslev’s theory of stratification. More precisely, we will see how the three types of ‘higher-level’ semantic models can be defined, in a semiotic framework, in relation to another ‘semantics’ which is relevant in the system–structure interaction. The way in which different types of ‘higher-level’ semantics will be specified in a Hjelmslevian sense further on in this article



**Fig. 10.** Martin's reference to Hjelmslev's concept of a connotative semiotic: "Language as denotative, context as a connotative semiotic" (Martin, 1992:405—Fig. 6.3).

is based on a re-interpretation of a suggestion made by Martin (1992). In explaining his notion of 'discourse semantics', Martin (1992:405) refers to Hjelmslev's concept of a connotative semiotic system as follows:

The notion of text cannot be understood unless linguistic text forming resources are interpreted against the background of (or better, as redounding with) contextual ones. From the point of view of functional linguistics texture can never be anything other than texture in context. *English Text's* model of language (as a denotative semiotic) in relation to context (its connotative semiotic) is outlined in Fig. 6.3. [repeated here as Fig. 10]

We will return to the notion of a connotative semiotic, and the way in which it can specify the semiotic nature of 'higher-level' 'semantic' systems below. As indicated above (section 1.2), Martin's (1992) brief reference to Hjelmslev is the only occurrence of Hjelmslev's semiotic framework being drawn upon in theoretical discussions in Stage III of SFG. Hjelmslev was more explicitly used as a theoretical framework in earlier stages of SFG, to which we will turn in the next sections.

#### 4.2. Stage II: internal stratification of the Hjelmslevian content plane

A stratification of 'semantics' and 'lexicogrammar' was first proposed by Halliday in the early 1970s, and was inspired by language development studies—more specifically, studies of how the early linguistic system of a very young child (called proto-language by Halliday) gradually elaborates into an adult language. According to Halliday (1976b/1973, 1984), the proto-linguistic system can be modelled in terms of a simple coding relationship between a content level and an expression level (intended in the Hjelmslevian sense): a particular expression realizes a particular content or use of language. As the child's language develops, it has to fulfil more functions in more diversified contexts (we will focus on the importance of 'function' in this development below), and a one-to-one relationship between content and expression no longer obtains. In modelling this expanding resource, Halliday claims, a new interface is needed, in addition to the traditional levels of content and expression. This is the interface between 'semantics' ('meanings') and 'lexicogrammar' ('wordings') within the content plane. The content plane rather than the expression plane is internally stratified, since the relationship between 'lexicogrammar' and 'semantics' is 'natural', whereas phonology generally relates to 'lexicogrammar' in an arbitrary way.

In explaining this *internal stratification of the content plane*, Halliday explicitly refers to Hjelmslev's framework:

With the very young child, the uses of language seem to be rather discrete; and each has its own 'grammar', or 'proto-grammar' since it has no stratal organization. [...] But the adult use of language is such that, with minor exceptions, each utterance has to be multifunctional – while at the same time having an integrated structure. There must therefore be a level of organization of meaning: a *semantic level*, or in Lamb's terms 'semological stratum'. In Hjelmslev's terms, the 'content purport' has to be separated from, and organized into, a 'content substance' as a precondition of its encoding in 'content form'. (Halliday, 1976a:30–31, emphasis MT)

In other words, the internal stratification of the content plane—the only plane which interfaces with an expression plane in the basic two-level model of proto-language, is explained by Halliday as a differentiation into content-substance and content-purport<sup>15</sup>: the 'semantic' level is the Hjelmslevian *content-substance*, which is organized into or coded into (i.e. formed by or realized in) a level of 'lexicogrammar', a level of *content-form*. In keeping with the general type of visualization which is used in SFG to represent 'stratification',<sup>16</sup> this can be shown as in Fig. 11.

Since Hjelmslev himself uses 'semantics' as an alternative label for his 'content-substance', as we saw in section 2, Halliday's equation of his 'semantics' with Hjelmslev's 'content-substance' provides a basis for exploring how the precise

<sup>15</sup> See also Halliday (1998:189).

<sup>16</sup> This is in keeping with the entrenched systemic functional 'convention' of conceiving of stratification in terms of a *vertical dimension*, and hence also of indicating different strata along a vertical dimension in visual representations (compare also the basis of this figure in section 1.1, where 'stratification' in general has been introduced). It is necessary to specify that this figure is based on the *systemic functional* convention, since, as will be recalled from section 2 where Hjelmslev's theory of language was discussed, in this article the Hjelmslevian dimension of schematicity reflected in the form–substance distinction is in principle visually represented along a horizontal dimension.



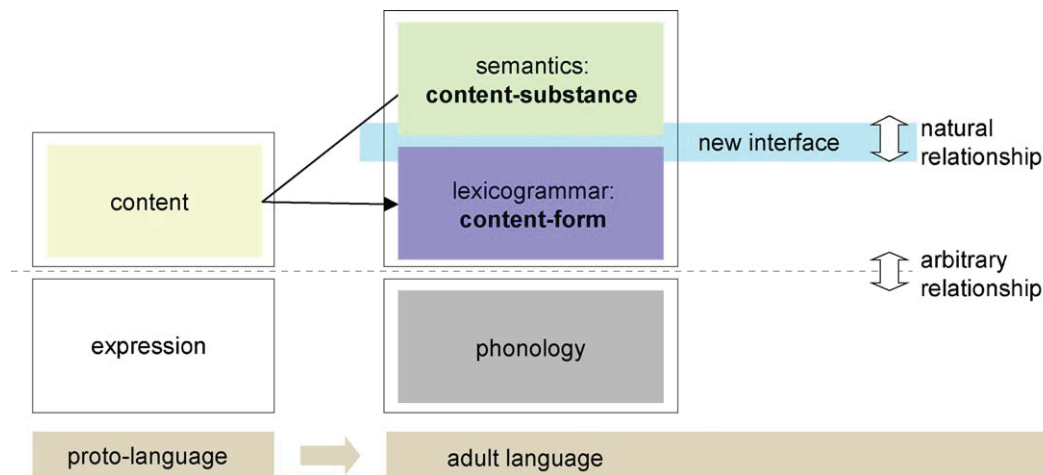


Fig. 11. The internal stratification of the content plane interpreted as a differentiation into content-substance and content-form.

semiotic nature of the systemic functional 'internal stratification' can be elucidated in a Hjelmslevian framework. Let us therefore consider how Halliday characterizes his 'semantics' and the status he assigns to it as a new stratum (complementary to a 'lexicogrammar'), a 'content-substance' in the organization of adult language.

In the passage quoted above, Halliday links the appearance of a 'semantics' (and hence a 'lexicogrammar') to the new feature of multifunctionality inherent in adult language: it is the stratal organization of the content plane which makes it possible for utterances to serve multiple functions at the same time, which are coded in 'integrated structures'. What is meant here is the layered structure of (adult) language, with different metafunctional strands mapped onto one another, and onto a syntagmatic (class) structure, as we saw above (section 3.2). While the proto-linguistic signs have one particular function, a 'use-in-context', in adult utterances three metafunctions of language, viz. to construe reality, to enact a speaker role, and to create texture, are combined. The link between the appearance of a 'semantics' and the metafunctional organization of language is further emphasized in the paragraph immediately following the passage cited above:

What we are calling *the functions of language* may be regarded as the generalized categories of 'content substance' that the adult use of language requires. [Halliday, 1976a:31; emphasis MT]

Interpreting the 'functions of language' as the metafunctions, this description reflects a conception that the metafunctions, although they permeate the whole system of language, are centrally located in a stratum of 'semantics'. In other words, it is the paradigmatic organization of language, the systemic options, which are seen as being clustered into three metafunctional components, which are here referred to as 'semantics'.

The question we can now address is: in what sense is this type of semantics (interpreted as the potential, the system of language which contains options that are encoded in lexicogrammatical structures) related to Hjelmslev's *content-substance*? We can approach this question, in a preliminary fashion, by simply projecting the Hjelmslevian stratification scheme onto Halliday's model of stratification with four strata, paying special attention to the way Halliday interprets the correspondences between the components in the two models. In Fig. 12 the two models are juxtaposed and the correspondences as interpreted by Halliday in Stage II of SFG are highlighted.

What is immediately noticeable, when one considers Fig. 12, is that, whereas the systemic functional scheme only involves one aspectualizing dimension, i.e. 'stratification' as it is commonly defined in SFG as a distinction of different 'levels' in language, in Hjelmslev's scheme two differentiating dimensions are involved, i.e. content–expression and form–substance–purport. This means that the SFG scheme is organized in terms of one semiotic relationship, viz. that of realization or coding, whereas again, the Hjelmslevian model is based on two different kinds of semiotic relationships: connection (the sign function) and schematicity.

Most crucially, a consequence of this general difference between the two models is that, whereas in SFG, 'semantics' is seen as being realized in 'lexicogrammar', in Hjelmslev's theory, it is 'content-form' ('lexicogrammar') which is defined as being manifested in 'content-substance' ('semantics'): it seems as if two opposite directions are involved, in the two theories, in the way in which 'semantics' is defined in relation to 'lexicogrammar'. This striking observation regarding the seemingly opposite relationship between 'semantics' and 'lexicogrammar' in the two theories, considered in view of the fact that Halliday does motivate his 'stratification' model in terms of an 'internal stratification' of the content plane of language into Hjelmslevian form and substance, calls for a more detailed investigation of the relationship between Halliday's and Hjelmslev's stratification schemes.

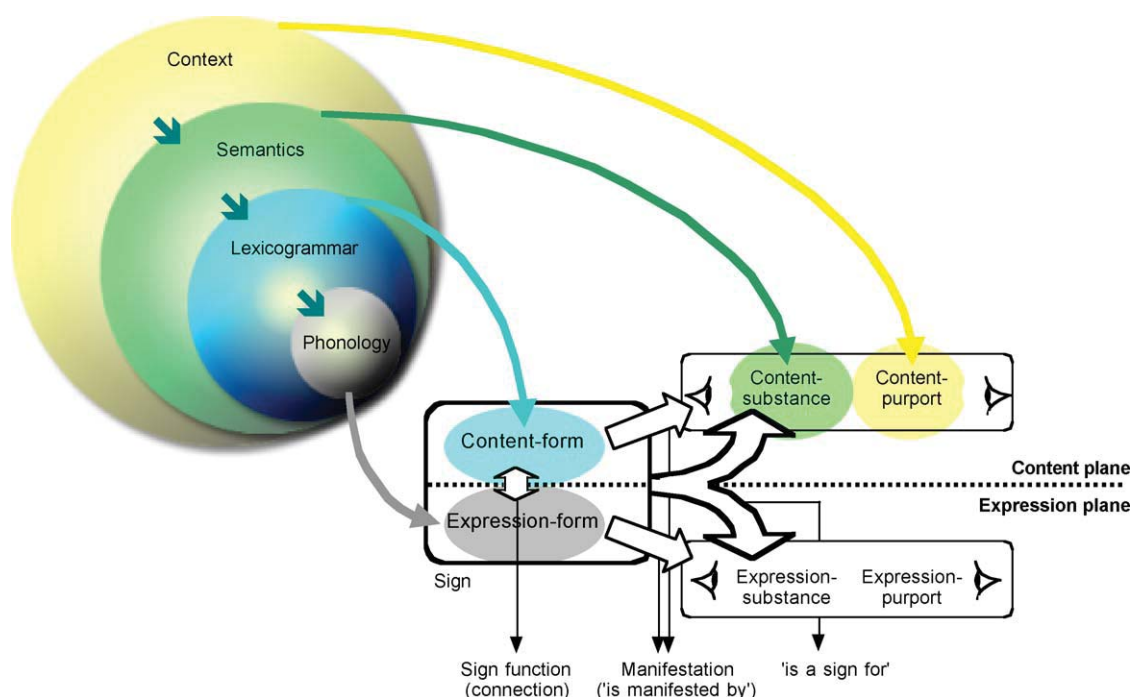


Fig. 12. The general systemic functional scheme of stratification projected onto the Hjelmslevian stratification scheme.

In this more detailed investigation, which we will turn to below (section 5), it will be argued that Halliday's abstract characterization of a 'semantics' in relation to the (meta)functionality of language cannot be conceived of as corresponding to Hjelmslev's definition of a stratum of 'content-substance'. It will further be argued that the lack of correspondence between the systemic functional and Hjelmslevian frameworks with regard to 'stratification' is due to a particular interpretation of Hjelmslev's theory which was proposed by Halliday in his scale-&-category model of language (Stage I of SFG). Let us therefore first consider how Halliday interprets Hjelmslev's model of stratification in Stage I.

#### 4.3. Stage I: levels and semiotic relationships in the scale-&-category model

It is in the context of motivating his new conception of language as stratified – a conception which is intertwined with his equally new notion of 'metafunctions' – i.e. at the time when his theory becomes 'systemic functional' (Stage II of SFG), that Halliday explicitly refers to the Hjelmslevian notions of 'content-form' and 'content-expression', in order to motivate his 'stratification' as an 'internal stratification' of the Hjelmslevian content plane. However, in his earlier scale-&-category model of language, which is not yet explicitly stratified, Halliday also uses Hjelmslev's concepts of 'form' and 'substance' in describing different 'levels' of language. The scale-&-category model is of crucial importance for the discussion in the present article, because it is theoretically much more detailed than the later model, and, even more importantly, Halliday also pays attention to different types of semiotic relationships between components of language.

In the scale-&-category model, the levels of language are defined as follows:

The primary levels are "form", "substance" and context". The **substance** is the material of language: "phonic" (audible noises) or "graphic" (visible marks). The **form** is the organization of the substance into meaningful events: "meaning" is a concept, and a technical term, of the theory [...]. The **context** is the relation of the form to non-linguistic features of the situations in which language operates, and to linguistic features other than those of the item under attention: these being together "extratextual" features. (Halliday, 1961:243–244)

Form is said to consist of two related sub-levels, "grammar" and "lexis", and hence refers to the later '*lexicogrammar*'. 'Meaning', which as a 'technical term' defines the level of form, is further specified as *formal meaning*, which is distinct from "contextual meaning"—the type of meaning which refers to the level of context. Formal meaning is defined as "a function of the operation of (a term in) a system" (Halliday, 1961:245). Contextual meaning is considered to be "an extension of the popular – and traditional linguistic – notion of meaning" (Halliday, 1961), and it is regarded as dependent on formal meaning:

The contextual meaning of an item is its relation to extratextual features; but this is not a direct relation of the item as such, but of the item in its place in linguistic form: *contextual meaning is therefore logically dependent on formal meaning*. (Halliday, 1961:245; emphasis MT)

Interestingly, Halliday notes that he uses the term “context” rather than “semantics” to refer to the level of contextual meaning, because “semantics” is too closely tied to one particular method of statement, the conceptual method” (Halliday, 1961:245).<sup>17</sup>

In linguistics in general, it is argued, it is the level of form which is most important: “formal criteria are crucial, taking precedence over contextual criteria” (Halliday, 1961). In relation to the central level of form, the levels of context (contextual meaning) and phonology (and also graphology) are regarded as functioning as “interlevels” (Halliday, 1961:244, 269), since they link the level of ‘form’ to ‘situation’ and ‘substance’ respectively.

The relationship between ‘form’ and ‘substance’ is called “**manifestation**” (Halliday, 1961:250). Manifestation is further described as constituting one end of a more general scale called **exponence**, which is a scale “which relates the categories of the theory, which are categories of the highest degree of abstraction, to the data” (Halliday, 1961:270). The other type of exponence is labelled “**realization**”: this type of semiotic relationship holds within the level of form, where it relates the “formal categories” (also called ‘descriptive categories’; for instance, ‘Subject’ as an element of structure) to “formal items”, of which Halliday gives the following examples: “the lexical item “cat”, the word “cat” as member of the word class of noun, the morpheme “-ing”” (Halliday, 1961:250).<sup>18</sup> Thus, more precisely defined, ‘manifestation’ refers to the relationship between a formal item (which is “the boundary of grammar [i.e. form, *мт*] on the exponence scale” (Halliday, 1961:271)), and the ‘material’ appearance of this item, either phonic or graphic, in a language. In the scale-&-category model, ‘exponence’ thus refers to a complex of semiotic relationships, comprising ‘realization’ and ‘manifestation’. This complex relationship of exponence, which will play an important role in the further characterization of Halliday’s model in section 5 below, was replaced by ‘realization’ towards the end of Stage I.<sup>19</sup>

Halliday’s description and visualization of these levels (along a horizontal dimension) are represented in Fig. 13, which also indicates where Halliday draws a link between his levels and the strata distinguished by Hjelmslev.

As can be seen in Fig. 13, Halliday’s components are represented along one dimension (i.e. horizontally), although there is some symmetry within the general scheme: the components of phonology/graphology and contextual meaning are two ‘interlevels’ – in the expression plane and the content plane, respectively – which link linguistic form to extra-linguistic aspects. Within this scheme, it is the Hjelmslevian dimension of form–substance–purport which predominates, and Halliday’s scale-&-category model focusses most on how linguistic form can be related to the substance of language. Importantly, the Hjelmslevian dimension of content–expression is not explicitly referred to or incorporated into the model. The symmetry in Halliday’s model is therefore different from Hjelmslev’s isomorphism. While in Hjelmslev’s model the sign, as the connection between a content and expression, forms the hinge, as we have seen, between the interaction dimensions of connection and manifestation, in Halliday’s model it is the level of form (corresponding to the Hjelmslevian ‘content-form’) which is regarded as the centre of the model, and which is related in two directions through ‘interlevels’ to extralinguistic aspects.

## 5. Halliday’s model in relation to Hjelmslev’s stratification scheme: a detailed comparison

In the previous section (section 4), we saw how, in three different stages of SFG, the place of a ‘semantics’ within an overall model of stratification, and the semiotic nature of this level in relation to other components of language, has been interpreted in different ways. In exploring how different aspects of Hjelmslev’s model are drawn upon in theoretical discussions throughout the development of SFG, it has become clear that the systemic functional interpretation of Hjelmslev’s categories is potentially problematic, at least in Stages I and II, above all because it fails to take account of the interaction between two differentiating dimensions which characterize Hjelmslev’s notion of stratification. The aim of this section is to explore how different types of semantics which have been highlighted in the various stages of SFG can be more precisely defined within a Hjelmslevian framework, and to spell out the different types of semiotic relationships inherent in the systemic functional model of stratification, again in relation to Hjelmslev’s semiotic theory. In this exploration, the scale-&-category model (Stage I) will be taken as a starting point, because, as we have seen, this model is the theoretically most elaborated one.

<sup>17</sup> Halliday here refers to a type of ‘semantics’ which was rejected by Firth in favour of a “contextual semantics”, which plays a major role in Firth’s theory of language (cf. Firth, 1957, 1968/1957:180; see also Lyons, 1966). The type of semantics referred to here, which has often been called ‘conceptual’ or ‘traditional’ semantics, a ‘semantics’ which is associated with the traditional notion of ‘denotation’, was rejected in structuralism in general, and different structuralist schools either discarded it altogether (e.g. Hjelmslev’s glossematics) or replaced it with an alternative type of ‘semantics’ (e.g. American structuralism (both in its Bloomfieldian and Sapirean strands), Prague structuralism). We will return to this ‘traditional’ or ‘conceptual’ semantics and the other variants of ‘semantics’ alluded to here further on in this article.

<sup>18</sup> The only three examples of exponence ‘in form’, i.e. ‘realization’, which Halliday gives, all in footnotes, are the following:  
[...] the exponent of the *element* P in in the structure of the unit “clause” is the *class* “verbal” of the unit “group”. (Halliday, 1961:257n; emphasis MAKH)  
The *formal item* “the old man” is exponent of (is a member of) a *class* (“nominal”, of the unit “group”). The *class* “nominal group” is exponent of (operates at the place of) an *element of structure* (S or C, of the unit “clause”). (Halliday, 1961:264n; emphasis MAKH)  
[...] for example, the formal item “were driven” may be exponent of: (i) the *unit* “group”, (ii) the *element* P in *structure*, (iii) the *class* “verbal”, and (iv) the *term* “passive” in a *system* of secondary classes. All these statements are interdependent (Halliday, 1961:265; emphasis MAKH)  
These three examples show that exponence as realization is a complex kind of relationship, involving a number of ‘cycles’ from ‘element of structure’ to ‘formal item’.

<sup>19</sup> Cf. Halliday (1966:59): ‘I use Lamb’s term ‘realization’ instead of the earlier ‘exponence’. Lamb’s term is more widely known [...]’.

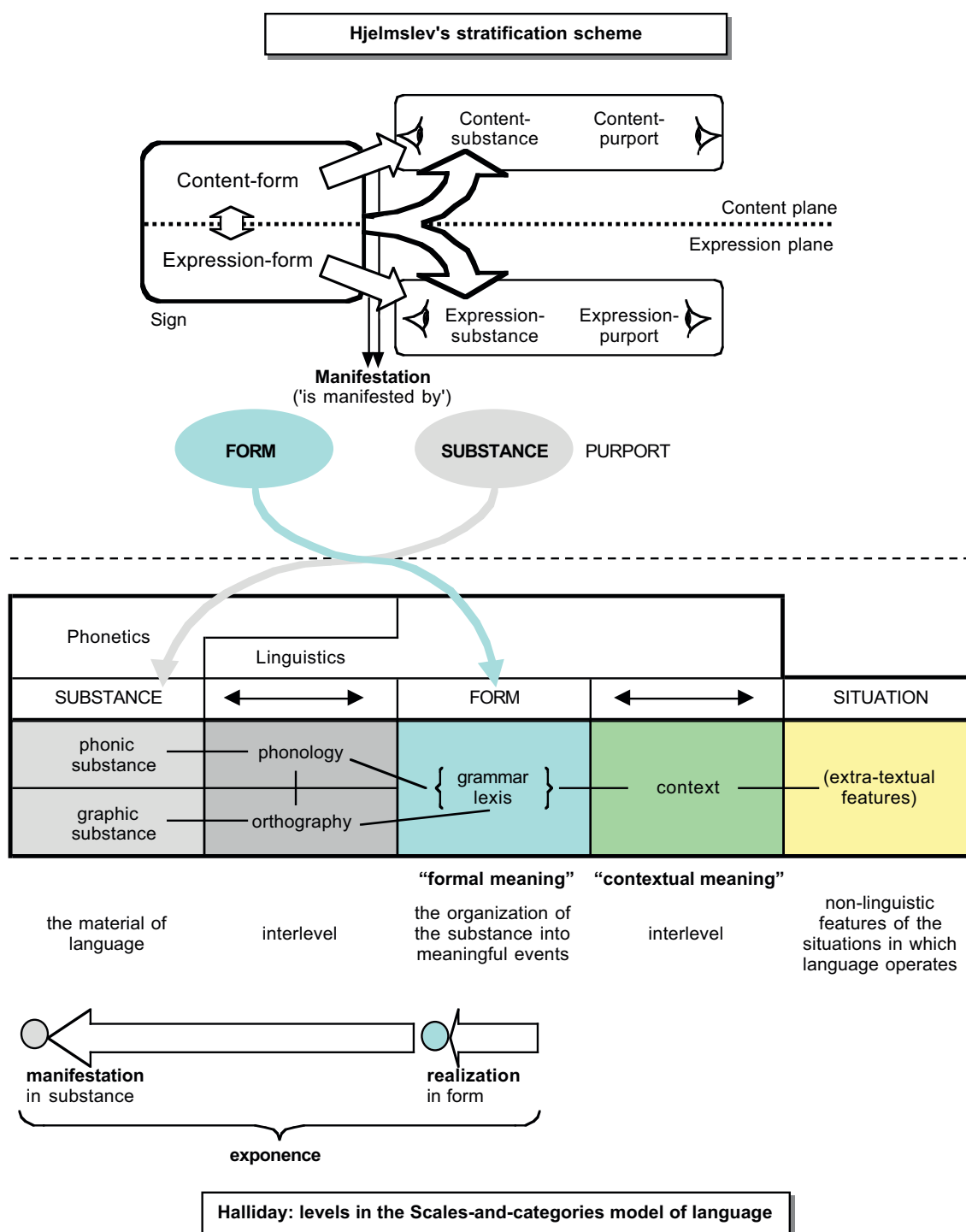


Fig. 13. The scale-&-category model of linguistic levels, and its motivation in relation to the Hjelmslevian stratification scheme.

### 5.1. Semiotic components

As noted above, the Hjelmslevian notions which Halliday uses in his scale-&-category theory are 'form' and 'substance'; in other words, Halliday refers to only one of Hjelmslev's differentiating dimensions, and, in addition, he only takes into account two aspects of Hjelmslev's form-substance-purport triad.

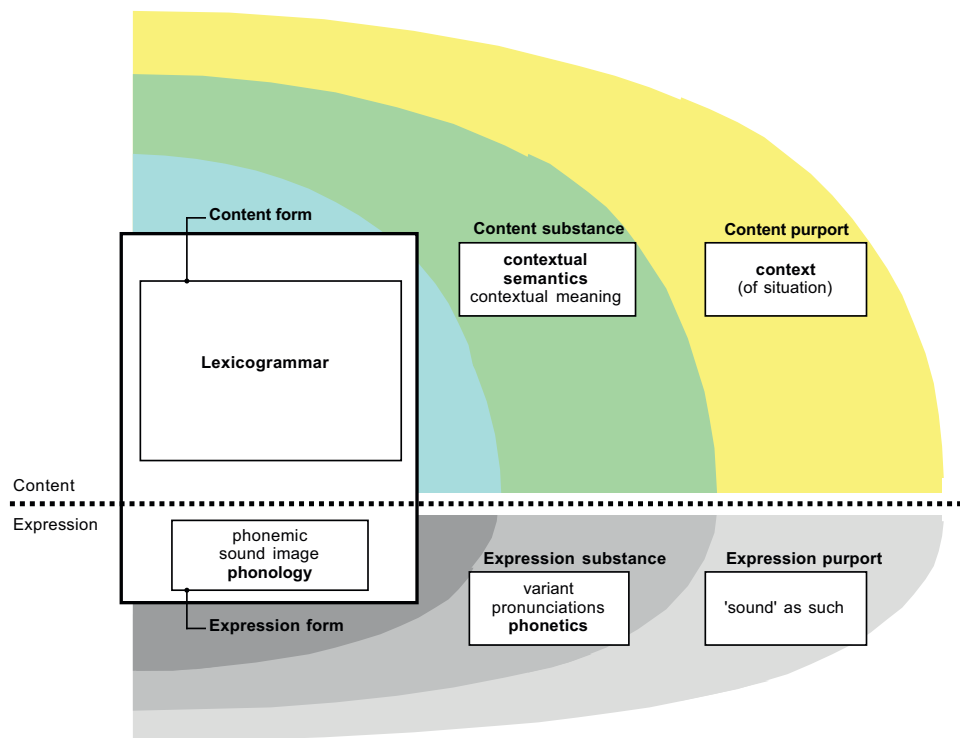


Fig. 14. Hjeltmslev's strata and Halliday's scale-&-category levels combined.

Considered in isolation, the description in Halliday's "Categories" article which comes closest to Hjeltmslev's theory is his definition of 'form': "The form is the organization of the substance into meaningful events" (Halliday, 1961:243). However, if one also takes into account the further context in which the definition of 'form' occurs in Halliday's framework, it should be recognized that it is not fully Hjeltmslevian: immediately before this definition is given, it is stated that "The substance is the material of language; "phonic" (audible noise) or "graphic" (visible marks)" (Halliday, 1961). What is problematic here, in view of Hjeltmslev's stratification scheme, is Halliday's commonsense ('literal') interpretation of 'substance' as the material side of language. In more specific terms, Halliday fails to take into account the dimension of content-expression as *different* from that of form-substance. Due to this particular interpretation of 'substance', Halliday does not reach the same degree of abstraction and logical precision as is characteristic of Hjeltmslev's framework, although, as we will see below, his general scheme of linguistic levels is essentially Hjeltmslevian in a more basic sense. Furthermore, it is precisely as a result of this lack of (Hjeltmslevian) precision in the scale-&-category model that Halliday was later able to equate his stratum of 'semantics', connected to the notion of metafunctionality of language, to Hjeltmslev's content-substance.

It is only when we also project Hjeltmslev's complete stratification scheme, i.e. incorporating his content-expression distinction in addition to his *threefold* form-substance-purport differentiation, onto the scale-&-category model of linguistic levels that we will recognize that Halliday's model is in essence Hjeltmslevian. In doing so, *each* of Halliday's levels will be linked to a stratum in Hjeltmslev's scheme, and it is in this way that we will arrive at a precise, semiotic characterization of one type of 'semantic' stratum as it is interpreted in SFG.

Fig. 14 indicates how Hjeltmslev's strata are reflected in Halliday's levels, which are no longer represented along a horizontal dimension, but in a way which alludes to the current systemic functional representation of strata by means of cotangent circles. The lower half of this figure, represented in scales of grey, shows the organization of the expression plane<sup>20</sup> as parallel to that of the content plane.<sup>21</sup>

When incorporating the content-expression distinction into the Hallidayan scheme, the first semiotic refinement which should be made to that scheme is that phonetics, which Halliday defines as substance, is Hjeltmslev's *expression*-substance, and phonology (and orthography/graphology)<sup>22</sup> is expression-form, as in Hjeltmslev's model. If we further take into account that, in Hjeltmslev's framework, form and substance are part of a more elaborate threefold distinction which also comprises a 'purport', a level of '*sound as such*' – indicating 'expression-purport' – can be added as an additional (i.e. sixth) level to the Hallidayan scheme (represented at the bottom right in Fig. 14).

<sup>20</sup> It is interesting to note, in this respect, that Prakasam (one of the few linguists who studies the phonic side of language in an SFG framework) talks about "phonetic and phonological *strata*" (Prakasam, 1987:275, emphasis *mt*).

<sup>21</sup> This presentation is inspired by the isomorphic nature of Hjeltmslev's model (cf. above, section 2).

<sup>22</sup> This level as a whole will henceforth be referred to as 'phonology' for short.



In the content plane, Hjelmslev's form–substance–purport distinction can be more directly projected onto Halliday's levels:

- (1) The formal end of this triad, i.e. '*lexicogrammar*', is explicitly regarded by Halliday as the form of language. Taking into account the content–expression plane as well, this would mean that lexicogrammar can be equated with 'content-form'. We will take this as a starting point for delineating the content strata, but it will be shown below that the equation of lexicogrammar with content-form needs to be modified or at least refined.
- (2) Halliday's '*situation*', defined in terms of "extratextual features" and "features of the situations in which language operates" clearly corresponds to Hjelmslev's 'content-purport'.
- (3) The interlevel<sup>23</sup> of '*contextual meaning*' (called 'context') relating the situation to the form of language is equivalent to content-substance in the Hjelmslevian scheme.<sup>24</sup>

Thus we arrive at a combined picture of the levels of Halliday's scale-&-category model and the strata in Hjelmslev's stratification scheme, as visualized in Fig. 14. It is within this framework that we obtain a characterization of a level of '*meaning*' which can be set off from a level of '*lexicogrammar*' in precise semiotic terms, i.e. in terms of Hjelmslev's distinction between substance and form: this is the level of contextual meaning, which we will preliminarily refer to as contextual semantics (a label which Hjelmslev also briefly refers to, as we saw above (section 2)). Further on in this section (cf. section 5.2.6), when we also take account of the semiotic relationships between different linguistic components, the semiotic nature of this contextual semantics within an overall model will be further defined.

## 5.2. Semiotic relationships and types of 'semantics'

### 5.2.1. Introduction

Using the combined picture in Fig. 14 as a basis, we can now turn to the kinds of semiotic relationships which are defined in Halliday's and Hjelmslev's theories. These are: (1) the relationship of '*exponence*', split into 'realization' and 'manifestation', in Halliday's scale-&-category model; (2) the relationship of '*realization*', which has replaced the earlier 'exponence' since Stage II, and which in SFG in general is seen as holding between strata; and (3) Hjelmslev's sign function (*connection* between content and expression) and the schematicity relationship between form and substance (*manifestation*).

At this point we have to address a complexity regarding the notion of 'realization', which, as we have seen, has become the single fundamental semiotic relationship in the 'standard' version of stratification in SFG since Stage II. In other words, we have to tackle the question of how it can be that in the two frameworks, the relationship between 'semantics' and 'lexicogrammar' seems to be defined in opposite directions, as we saw above: 'semantics' as realized in 'lexicogrammar' (in Halliday's model, from Stage II onwards) versus content-form as manifested in content-substance (Hjelmslev).

### 5.2.2. Realization between content-form and expression-form

In the standard Hallidayan stratification model theorized in terms of four cotangent circles, the semiotic relationship of realization is conceived of as a vertical (albeit slanting) relationship: a higher level is realized in a lower level. In Fig. 14, this scheme has been remodelled to link it with Hjelmslev's model in which two dimensions are involved: the semantic and contextual strata have been placed towards the right of lexicogrammar (i.e. forming a horizontal link with lexicogrammar). In the combination of these two models, there is one relationship which remains constant, viz. that between content-form (lexicogrammar) and expression-form (phonology), indicated vertically. The systemic functional notion of realization can therefore preliminarily be defined as corresponding to Hjelmslev's relationship of 'connection': in very general terms, it refers to the solidarity between an aspect of content and an aspect of expression, which, through this relationship of solidarity, together constitute a linguistic sign. In this sense, realization is linked to what I have called Hjelmslev's primary characterization of the content–expression contrast in language (cf. section 2), the more specific characterization which highlights the role of the content–expression connection in constituting a linguistic *form*: a content-form is only form by virtue of its being connected to an expression-form, and vice versa. The re-interpretation of 'realization' in terms of 'metaredundancy' – referring to the relationship through one element on one level redounding with, co-occurring with, another element on a different level – also ties in well with Hjelmslev's concept of connection.

### 5.2.3. The concept of 'exponence' as a starting point for clarifying other semiotic relationships

In order to come to a better understanding of other semiotic relationships which are complementary to that between content-form and expression-form (as one instance of 'realization'), we can use the notion of 'exponence' from the scale-

<sup>23</sup> Notice that, from a Hjelmslevian perspective, Halliday's 'phonology' is not an interlevel in the same sense as his 'contextual meaning' is. Halliday focusses on what he calls form, and identifies as interlevels the two levels which are adjacent to form on either side. Redefining Halliday's form as 'content-form', the two strata in Hjelmslev's scheme which are directly related to the content-form are indeed content-substance (Halliday's 'contextual meaning'), and expression-form (Halliday's phonology), but these are related to the content-form in two fundamentally different ways, i.e. in terms of the two basic differentiating dimensions on which Hjelmslev's scheme is built: connection and schematicity. We will return to the semiotic relationships involved in the two theories below.

<sup>24</sup> The characterization of 'contextual meaning' as a content-substance in Hjelmslev's sense will be further motivated below in connection with the semiotic relationships involved in Hjelmslev's theory (especially manifestation or schematicity).

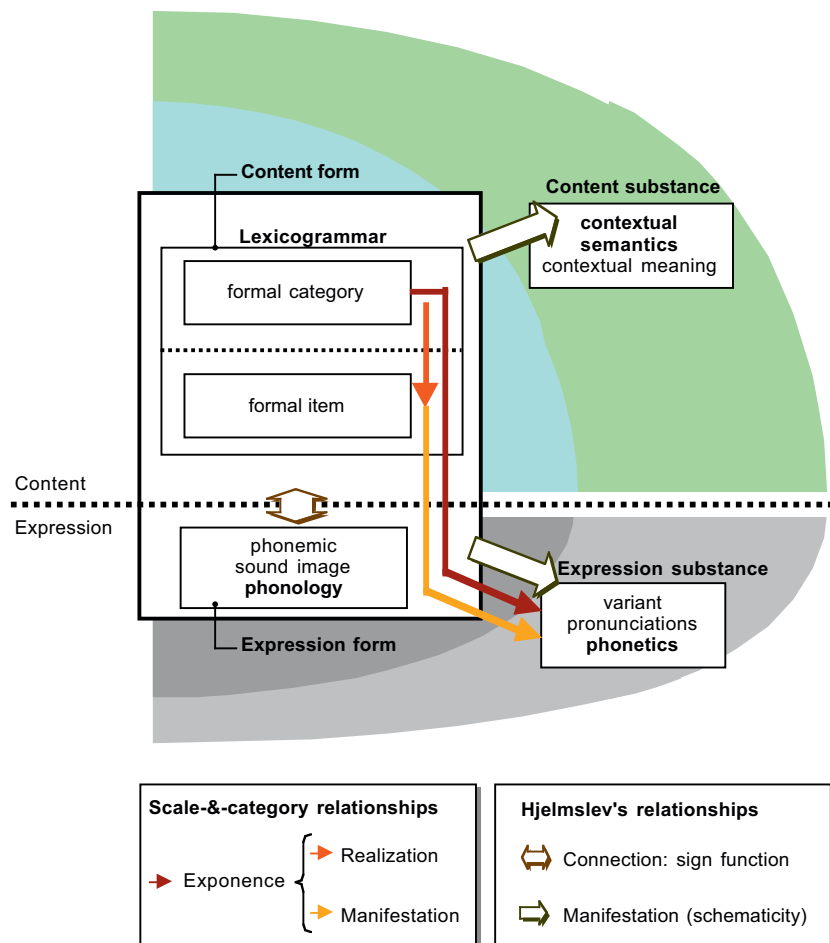


Fig. 15. Semiotic relationships in Hjelmslev's theory and in Halliday's scale-&-category model.

&-category model as a starting point since this notion is precisely defined by Halliday, and in this definition, he incorporates a dimension of 'manifestation' (which also occurs in Hjelmslev's framework). In order to see how Halliday theorizes the semiotic relationship of 'exponence' in that model, we have to take into account the internal organization of his level of 'lexicogrammar', since, in that model, it is within this level that the relationship of 'realization' obtains. Fig. 15 visualizes the semiotic relationships defined in the scale-&-category model, using as a basis the combined picture of levels/strata we arrived at above.

#### 5.2.4. Manifestation or instantiation in the expression plane

As we saw above, in the scale-&-category model, 'manifestation' is one type of 'exponence', supplementing 'realization': 'manifestation' is exponence "in substance", whereas 'realization' is exponence "in form" [Halliday, 1961:250n]. Apart from this general characterization of 'realization' and 'manifestation' in terms of an overall scale of 'exponence', later on (in the section dealing with exponence), Halliday – again in a footnote – gives a more refined definition of the link between 'realization' and 'manifestation', as follows:

Strictly speaking the relation of the formal item to its exponent in substance (i.e. 'manifestation', *MT*) entails a two-fold relation of abstraction, *one* of whose dimensions is **exponence** (and is therefore a prolongation of the scale which relates the category to the formal item [i.e. 'realization', *MT*]). The other dimension is the **abstraction, by likeness**, of a "general" event (class of events, though not in the technical sense in which "class" is used here) from a large number of "particular" events, the individual events of speech activity. For theoretical purposes the exponence scale can be regarded as comprehending this dimension of abstraction, which takes place then in that part of the scale which relates formal item to exponent in substance. (Halliday, 1961:271n; italics: MAKH, bold: *MT*)

In this passage, 'manifestation' is not just regarded as a continuation of 'realization' (together forming a scale of 'exponence') in substance; 'manifestation' itself is refined as comprising two different kinds of relationships:

- (1) on the one hand, it involves ‘realization’, and in this sense it is a “prolongation of the scale which relates the category to the formal item”;
- (2) on the other hand, it also entails a totally different kind of relationship, which is not named, but which is defined as a kind of abstraction “by likeness, of a “general” event [...] from a large number of “particular” events”.<sup>25</sup> I will refer to this relationship, for the time being, as “abstraction by likeness”.

It is clear that the central point at which ‘manifestation’, defined in Halliday’s sense as the link between content-form and expression-substance, breaks into ‘realization’ and ‘abstraction by likeness’ is the level of expression-form, or the phonological level, which in Halliday’s general model of levels is defined as a type of ‘interlevel’.<sup>26</sup> Furthermore, taking into consideration the ‘combined picture’ of Halliday’s levels and Hjelmslev’s strata, it appears that Halliday’s ‘abstraction by likeness’ corresponds to what Hjelmslev calls ‘manifestation’, which, as we saw above (section 2), is a relationship between a schema and a particular usage, or between a constant and a variable. In other words, what is a major differentiating dimension in Hjelmslev’s theory – the relationship of ‘manifestation’ – appears in the scale-&-category model as one facet of a more broadly defined relationship of ‘manifestation’ which also comprises a type of ‘realization’.

It will be clear, at this point, that the fact that Halliday does not assign a more important status to the relationship of ‘abstraction by likeness’ in his scale-&-category model is due to two factors: the commonsense interpretation of ‘substance’ as the ‘material’ of language, and, related to this, the one-dimensionality of his model of levels (in contrast with Hjelmslev’s stratification scheme, which is based on two differentiating dimensions). His scale of ‘exponence’ is a general scale “which relates the categories of the theory, which are categories of the highest degree of abstraction, to the data” (Halliday, 1961:270). The major cut-off point in this general scale is determined by his characterization of ‘substance’: ‘realization’ is a relationship which holds within ‘form’ (regarded as content-form only in Hjelmslevian terms) and ‘manifestation’ is then the link between the form of language and the phonic, material side of language.

In conclusion, in the framework of exploring how Hjelmslev’s semiotic relationships can be projected onto the scale-&-category notion of ‘exponence’, it is the recognition that there is also ‘form’ in the expression plane of language which lies at the basis of a refinement of the scale-&-category model. In this vein, expression-form is the central cut-off point in relating categories of the grammar to the appearance of these categories in phonic data, since expression-form, in the Hjelmslevian sense, is defined (as expression-form) in terms of two fundamental types of semiotic relationship: as *expression-form* it is related to the *content-form* of language through the relationship of connection defining the sign-function; and as *expression-form* it is related to *expression-substance* through the relationship of manifestation.

The term **manifestation** will henceforth be used in the Hjelmslevian sense, and in this way, also refers to Halliday’s relationship of ‘abstraction by likeness’. Halliday’s notion of a type of relationship which involves ‘abstraction by likeness’ of a ‘general event’ from more ‘particular, individual events’ corresponds exactly to Hjelmslev’s concept of manifestation: it refers to the relationship by which ‘invariables’ are *instantiated* in different ‘variables’. More specifically, within the expression plane, this is the relationship between phonemes and specific, phonetic manifestations of these phonemes.

Manifestation will more generally be referred to as **schematicity** or **instantiation**, since it concerns the relationship between a schema and an instance (a particular usage/an instantiation) of this schema. Importantly, Halliday has more recently recognized the separate status of a dimension of ‘instantiation’ within his earlier ‘exponence’:

Firth’s concept of exponence is the product of these two relations: his “exponent” is both instantiation and realization. (Halliday et al., 1992:20)

#### 5.2.5. Realization within content-form–formal meaning

So far we have mainly focussed on types of semiotic relationships which pertain to the expression side of language: this side, with its facets of expression-form and expression-substance, is centrally involved in Halliday’s ‘sole’ semiotic scale, viz. his ‘exponence’. Within the content plane, Halliday distinguishes only one type of semiotic relationship, that of ‘realization’ as a subtype of exponence (see Fig. 15). This realization *within lexicogrammar* needs to be clarified in relation to the type of realization we defined above, i.e. realization as the connection between lexicogrammatical content and phonological expression.

With regard to the internal organization of lexicogrammar, the notion of realization – as it is characterized in the scale-&-category model –, can be seen as referring to the relationship between *systemic* terms and lexicogrammatical *structures* through which these systemic options are encoded in a particular language. It thus refers to the relationship between system and structure and corresponds to the concept of a ‘realization statement’ which has become well-entrenched from Stage II of SFG onwards. I argue that it is this type of ‘realization’ which was generally focussed on in the second stage of SFG, when the basic system networks of TRANSITIVITY, MOOD and THEME were further developed in descriptive work, and when the general stratified model of SFG was motivated by Halliday in terms of an internal stratification of the Hjelmslevian content plane, which is explained as a key feature of adult language because it enables the combination of different (meta)functions in each

<sup>25</sup> In Fig. 15, these two relationships correspond to the vertical part and the slanting part (respectively) of the arrow representing ‘manifestation’ (indicated in orange). The vertical part shows the ‘prolongation’ from the relationship of ‘realization’, which is equally represented on the vertical dimension.

<sup>26</sup> This is the interlevel between his ‘form’ (i.e. Hjelmslev’s content-form) and his ‘substance’ (i.e. Hjelmslev’s expression-purport). Halliday no longer refers to the status of his interlevel in his treatment of exponence.

linguistic utterance. It can now be seen that the generalization of the concept of ‘realization’ at Stage II, as (1) the general semiotic relationship underlying the standard stratified model of language proposed in that stage, and (2) the replacement of the earlier ‘exponence’ (cf. note 14), is in fact based on just one aspect of the semiotically multi-faceted relationship of ‘exponence’ as it was defined, as a realization–manifestation complex, at Stage I.

This type of realization within lexicogrammar can be characterized as a variant of the type of realization which holds between lexicogrammar and phonology as defined above. More specifically, the relationship between a systemic feature and a structural realization of this feature can be theorized as a recurrence of the basic content–expression contrast *within* lexicogrammar. This specification of realization within lexicogrammar is based on extending Hjelmslev’s second-order characterization of the content–expression contrast, i.e. his more abstract interpretation of this contrast (no longer tied to the ‘concrete’ notions of a conceptual side and phonic side in language). In this second-order interpretation, as we have seen, the interaction between a content and an expression is regarded as a general relationship of ‘mutual solidarity’, which can recur, on different levels of abstraction, throughout a semiotic system (section 2.2). In fact, the distinction between a content and an expression within lexicogrammar is a theoretical specification, based on Hjelmslev’s semiotic theory of language, of the traditional-informal notion of a relationship between ‘meanings’ and the ‘forms’ in which these meanings are ‘expressed’.<sup>27</sup> In this perspective, the description of linguistic constructions in terms of form–meaning couplings is ‘formal’ in a truly Hjelmslevian sense: linguistic signs are defined on the basis of a solidary relationship between a content-form, a ‘meaningful feature’ defined in contrast to other ‘meanings’ in a network (e.g. the feature [effective]), and an expression-form, a structure by which this feature is encoded.

The type of semantics which is specified here can be referred to as that of **constructional formal meaning**. In this sense, Halliday’s label ‘formal meaning’ to characterize the component of lexicogrammar in the scale-&-category model only highlights what was later conceived of in SFG as the features in a system network. A constructional formal meaning, such as an [imperative] or a [mental process], which is theorized in SFG by means of (a combination of) features in system networks, is related through realization to **lexicogrammatical structure**, which is represented in system networks by means of realization statements.

#### 5.2.6. ‘Instantiation’ in the content plane—ontological meaning and the nature of lexicogrammar

##### [1] Ontological meaning

We can now return to the component of content-substance, which was initially defined (section 5.1) as ‘contextual semantics’, and consider in more detail the semiotic relationship which defines the role of this component in the model as a whole. In his scale-&-category model Halliday does not specify any type of semiotic relationship which theorizes the connection between his ‘form’ (lexicogrammar) and ‘context’ (contextual semantics). However, taking into account Hjelmslev’s form–substance–purport distinction within the content plane, it is clear that the relationship between lexicogrammar, as content-form, and ‘contextual semantics’, as content-substance, is equally one of instantiation/schematicity/manifestation. In other words: lexicogrammar is manifested in contextual semantics. This, then, is the most important upshot, with regard to the purposes of our article, of exploring how Hjelmslev’s stratification scheme can be projected onto Halliday’s conception of the syntax–semantics interface: the recognition that *the distinction between lexicogrammar and a semantics, defined as ‘contextual semantics’, is based on instantiation rather than realization*, as the general SFG scheme of stratification in terms of semantics  $\searrow$  lexicogrammar  $\searrow$  phonology or graphology would have it.

As we saw in section 2.3, in Hjelmslev’s characterization of the form–substance–purport triad, the focus is on the relationship between form and (substance–)purport (recall that substance and purport are only different in terms of perspective—cf. Fig. 2 above). It is concerned with the way in which ‘purport’, which is essentially non-linguistic, can be related to language, i.e. the linguistic signs which constitute the form of language. Approaching the triad from the other end, from the end of ‘form’, the aspect of linguistic signs that is highlighted here is the relationship of ‘being a sign for’ something. As we have seen, within the content plane, this extra-linguistic ‘something’ (the content-purport) is Kant’s *noumenon* or *Ding an sich*.

The type of contextual semantics which is ‘content-substance’, in this perspective, can now be further defined as an **ontological semantics** or a **phenomenological semantics**.<sup>28</sup> As content-substance, an ontological semantics does not belong to the form of a language, and hence, strictly speaking – speaking from a Hjelmslevian perspective – ontological semantics does not form a part of linguistics. In this respect it is useful to refer to a distinction which is made in German

<sup>27</sup> It should be emphasized that ‘form’ in this traditional-informal notion of a relationship between ‘meaning’ and ‘form’ does not correspond to the more abstract Hjelmslevian category of ‘form’; rather, it refers more literally to the way in which meanings are expressed in ‘formal’ patterns (structures).

It is also interesting to note, that the concept of ‘formal meaning’ is ambivalent in this respect: on the one hand, it can refer to content-form, and in this interpretation contrasts with content-substance (which is then ‘contextual meaning’), on the other hand, it can refer to the meaning of grammatical forms in a more general sense.

<sup>28</sup> The term ‘ontological’ in general refers to the existence (being) of (things in) reality and the way in which we perceive this reality: the prefix *onto* is derived from Greek *οντοζ*, which is the present participle of *ειναι*, ‘to be’, and hence means ‘being’ (cf. Klein, 1971). The term ‘phenomenological’ is based on Husserl’s phenomenological theory of ‘meaning’. In that theory, Husserl argues that there is no “an sich”, no *noumenon* (cf. Willems, 1994:40–50), but only our subjective perception, and for this Husserl uses the term “Phänomenon”.

Hjelmslev, as was noted above (cf. section 2.3), uses both ‘ontological’ and ‘phenomenological’ meaning to refer to the aspect of the content plane which has to be excluded from linguistics, for the reason that it is not part of the form of language.

linguistics, viz. that between *Bedeutung* and *Bezeichnung* (cf. Lyons, 1977:199). Coseriu, who has played an important role in theorizing this distinction, gives the following description:

Wenn die Bedeutung die einzelsprachliche *Gestaltung*, d. h. eine Einteilung oder Abgrenzung, eine *Form* der Erfassung des Außersprachlichen darstellt, so entspricht die Bezeichnung dem jeweils Erfaßten, Gestalteten oder Eingeteilten: Sie ist der in verschiedenen Sprachen von der Bedeutung verschieden geformte *Stoff*. (Coseriu, 1987:186; emphasis EC)

In other words, *Bedeutung* refers to the ‘meaning’ which is formalized in the linguistic system of language, and in this sense, the ‘constructional formal meaning’ defined above is one facet of *Bedeutung*. *Bezeichnung*, on the other hand, is the extralinguistic ‘meaning’ which in various languages can be formed in different ways. To give a simple example, ‘*Bezeichnung*’ refers to the meaning which is common in the following expressions:

- a. *Peter gave Jane a present.*
- b. *Jane was given a present by Peter.*
- c. *Jane received a present from Peter.*

The relationship between ontological meaning and the other components of language can be defined in two ways, one focusing on the relation of schematicity which is inherent in the form–substance–purport triad; another focusing on the status of the sign as ‘being a sign for’ a substance/purport. On the one hand, in terms of Hjelmslev’s theory, the relationship between formal meaning and ontological meaning is again one of **schematicity** or **instantiation**: the formal meaning of linguistic signs, defined in terms of the system of a particular language, is schematic to the various instances of extralinguistic meanings which it can apply to. This is exactly the ‘formative’ aspect of formal meaning: linguistic signs are categories or classifications which a particular language projects onto extra-linguistic meanings. In this sense they are abstractions ‘by likeness’ (to use Halliday’s expression again—cf. section 5.2.4) of general categories from particular extra-linguistic meanings, where ‘likeness’ is interpreted in different ways in different languages: each language carves up ‘purport’ in different ways. Recall Hjelmslev’s illustration by means of colour terms in this respect: the Welsh *glas* designates various shades of colour which in English are construed through the signs *green*, *blue* and *gray* (cf. section 2.3).

On the other hand, as has been indicated above, the relationship between the form of language and an ontological semantics is also one of ‘being a sign for’: the colour terms referred to above are different signs for the ‘same’ extralinguistic meaning. Now in SFG in general, the relationship between language and extralinguistic reality is often referred to as **construal**. In this sense, the example *Peter gave Jane a present* and the two other variants given above construe an extralinguistic meaning in different ways.

## [2] The nature of lexicogrammar

Above we specified ‘lexicogrammar’ as a type of form in relation to (ontological) semantics which is then seen as substance. Since this relationship holds within the content plane, I referred to lexicogrammar as ‘content-form’. However, it will have become clear that this is not *the* ‘content-form’ which Hjelmslev interpreted as ‘only form’, as ‘pure form’ (cf. section 2.3 above). In order to allow an interpretation of the relationship between lexicogrammar and (ontological) semantics as one of manifestation, as we have just seen, and to recognize that Halliday’s lexicogrammar is not the content-form as intended by Hjelmslev, I therefore propose to conceive of this relationship, in a Hjelmslevian sense, in terms of the secondary interpretation of the form–substance–purport dimension.

Thus there is the primary Hjelmslevian content-form, i.e. pure form, whose investigation has remained in initial stages in glossematics. From this perspective, any other component which contains meaning is not form, but substance. However, on a more abstract level, the form–substance distinction recurs (i.e. it does not only apply starting from the purest content-form), as a differentiation between schema and usage. It is on this level that lexicogrammar is a type of content-form (schema) in relation to ontological semantics as a type of content-purport (usage).

### 5.2.7. A further type of ‘realization’—connotative semantics

So far we have given a specific semiotic characterization, based on Hjelmslev’s model of stratification, of the components (strata) and semiotic relationships which appear in Stages I and II of SFG. In so doing, we have identified two different types of ‘semantics’, viz. ontological meaning and constructional formal meaning. There is one additional type of ‘semantics’, which has been highlighted in Stage III of SFG, and which has not yet been accounted for in the framework of components and relationships set up above: the different types of higher-level systems which were developed in the 1990s, viz. *discourse semantics*, *appraisal theory*, and the model of the *ideation base*. The higher-level interpersonal system of *SPEECH FUNCTION*, which was developed by Halliday in the second part of Stage II, and which has been incorporated into Martin’s model of discourse semantics, will also be discussed in the present section in relation to the other ‘higher-level’ systems.

As already indicated above, Martin’s brief reference to a connotative semiotic forms an interesting starting point for exploring how the higher-level systems developed in Stage III can be accounted for in a Hjelmslevian semiotic framework. In Martin’s interpretation of a connotative semiotic, a level of ‘context’ is seen as a second-order content plane which is coupled to the overall system of language (which in itself has different levels) as an expression plane (cf. Fig. 10 above). Counter to this



interpretation, I propose that it is the higher-level systems of discourse semantics, appraisal and the ideation base which constitute an additional, second-order content plane. As we have seen above, what these systems have in common is the fact that they offer a systemic model (i.e. a system network) of certain types of 'semantic spaces'. They group different types of 'meanings' which have a common type of purpose in a larger context than the constructional set-up of the syntagm that is focussed on in the traditional network of TRANSITIVITY, MOOD and THEME: this purpose is the creation of 'discourse' (discourse semantics—with as a subcomponent, the expression of a speech act as a turn in a discourse (SPEECH FUNCTION)), the expression of emotive and attitudinal meanings (appraisal), and the reference to various types of 'elements' in our experience as human beings (ideation base). These meanings, as we have seen, are realized by various types of linguistic resources, i.e. by types of linguistic signs which are defined, as signs (i.e. content-expression couplings), in relation to other signs in terms of their syntagmatic set-up, in the 'basic' systems of TRANSITIVITY, MOOD and THEME. We have seen how the development of these higher-order systems in Stage III of SFG has been made possible through an abstraction of the concept of 'realization' in terms of metaredundancy, which focusses on relationships of probabilities between different levels in a semiotic system. In this sense, the higher-order systems of discourse semantics, appraisal and the ideation base each model how particular types of linguistic resources tend to co-occur with – or redound with – a higher-level meaning. For instance, a [command] (SPEECH FUNCTION) can be encoded in an [imperative] or in an [interrogative]; a [process] (ideation base) can be encoded by means of a verbal or a nominal construction (through nominalization). It will be noted that the notion of 'metaredundancy', which lies at the basis of the development of these higher-level systems of SFG, brings out the abstract nature of the relationship of 'connection' between the two poles of a sign function (content–expression) which is also highlighted in Hjelmslev's concept of second-order semiotics.

## 6. Summary and conclusion

In this article we have investigated the systemic functional model of stratification, paying special attention to its conception of 'semantics' and how such a stratum is related to other components in the stratified model. We have approached this through a detailed exploration of how Hjelmslev's semiotic theory, and more specifically his model of stratification, has been interpreted at various stages in the development of SFG. We have found that different types of semiotic relationships have been highlighted in different stages of SFG, and on this basis we have identified three different types of 'semantics'. These types of semantics, together with the semiotic relationships and linguistic components discussed in this article, are summarized in Table 2.

In the detailed comparison of Hjelmslev's and Halliday's models, we have concentrated on five distinct types of semiotic relationships and the linguistic components relevant to these relationships (the numbers between square brackets refer to the rows in Table 2):

- [1] A first semiotic relationship is Hjelmslev's *connection*, or the relationship between a content and expression, which is seen, in a primary interpretation, in the link between a content plane and an expression plane in language, and which has

**Table 2**

Overview of semiotic relationships and components of language in Hjelmslev's model and three stages of SFG, and three types of semantics relevant in SFG.

	Hjelmslev	SFG I	SFG II	SFG III	Type of semantics
1	connection (sign function) content — expression	— form — phonology/orthography	realization content strata — phonology/graphology	ibid. ibid.	
2	manifestation: in the expression plane form — substance — purport	part of exponents: part of manifestation phonology — phonetics (phonic substance)	— —	— —	
3	manifestation: in the content plane form — substance — purport	— 'contextual meaning' as an interlevel	realization as internal stratification of the content plane: content-form — content-substance	— —	ontological semantics
4		part of exponents: realization formal category — formal item	realization system — structure	ibid. ibid.	constructional formal semantics
5	(2nd order) connection (2nd order) content — expression	— —	— SPEECH FUNCTION — linguistic system	metaredundancy higher-level systems — linguistic system	connotative semantics
	two dimensions: · content—expression · form—substance— purport	focus on relations between form and substance	focus on relations between content and expression		

been represented in this article as the vertical dimension of Hjelmslev's stratification scheme. This relationship is very well entrenched in linguistics in general, and is also incorporated – in a straightforward way – in SFG. The relationship was already present in the scale-&-category model (Stage I), although at that stage it was not specifically focussed on, nor labelled with a separate term. In later SFG, the relationship between a content plane and an expression plane in language is embedded within the concept of *realization* in SFG, represented vertically in the model of 'standard' model of stratification.

A second important semiotic relationship is Hjelmslev's *manifestation*, which holds between the components of the form–substance–purport triad, and the related concept of *being a sign for* (the relation between a linguistic form and an expression-substance, or a content-substance). Manifestation has been represented in this article as the horizontal dimension of Hjelmslev's stratification scheme. It is relevant within both the expression plane [2] and the content plane [3] of language:

- [2] In SFG, Hjelmslev's manifestation within the expression plane is incorporated in the scale-&-category model (Stage I), where it is also called *manifestation* and seen as a sub-component of a semiotic relationship called '*exponence*'. Halliday also relates 'manifestation' to the link between phonology and phonetics (as in Hjelmslev's theory), but in the scale-&-category theory, manifestation is a wider type of relationship which links a 'formal meaning' (the Hjelmslevian content-form) and phonic substance (the Hjelmslevian expression-substance).
- [3] In this early model, Halliday does not refer to a similar relationship of manifestation in the content plane of language. In this plane, he distinguishes a component of 'contextual meaning' as an interlevel between the form of language and (extra-linguistic) reality. He does not further elaborate on relationships within the content plane, the focus of his theory being on the intricate relationship of '*exponence*'. Reconnecting the scale-&-category model with Hjelmslev's theory, we have seen that Halliday's 'contextual meaning' corresponds to Hjelmslev's content-substance. We have further specified this component as an *ontological semantics*, an interpretation which is in keeping with Hjelmslev's brief references to ontological and phenomenological meaning in footnotes.

In the later stages of SFG, the specific components of an expression-substance (phonetics) and a content-substance (ontological semantics) are not integrated into the overall model of stratification. Halliday does refer to 'content-substance' in explaining when he presents his model of stratification, i.e. when he explains the differentiation between a semantics and a lexicogrammar in terms of an internal stratification of the Hjelmslevian content plane into a content-substance and a content-form, respectively. However, we have seen that the one-dimensional scheme of stratification in SFG, centring around one semiotic relationship of '*realization*', is not based on manifestation (form–substance relationships), but rather connection (content–expression relationships). Hence, the notion of 'semantics' referred to in the standard stratification model visualized by four cotangent circles is not the 'contextual meaning' – or the Hjelmslevian content-substance – of the earlier model.

- [4] The type of semantics that is highlighted in the 'standard' stratification model, proposed in Stage II, has been further defined in this article as the systemic side of the system network, i.e. the linguistic categories themselves ([imperative], [material process], [unmarked theme], and so on), which are encoded in different types of syntagmatic structures (specified in realization statements). I have labelled this type of semantics the component of *constructional formal meaning*, and we have seen how this 'semantics' can be explained through a relationship of connection (the co-occurrence of a category and a syntagmatic expression of that category) which holds *within* the content-form of language. This explanation is based on Hjelmslev's more abstract characterization of the relationship of connection as one that can recur, on different levels, throughout a semiotic system.

I have argued that when Halliday motivates his stratified model of language (Stage II) by explaining it in terms of an internal stratification of the Hjelmslevian content plane into a semantics and a lexicogrammar, this does not refer to the distinction, within the content plane, between a form and a substance, as Halliday sees it, but rather, a recurrence of the relationship of connection, within content-form. As we have seen, Halliday argues that the adult model of language (in contrast to the two-level model of proto-language) has to contain both a lexicogrammar and a semantics within the content plane, because different metafunctions are combined in each single utterance. It can now be seen that the definition of this 'semantics' as the systemic side of the system network (i.e. constructional formal meaning), ties in well with Halliday's explanation in terms of the multifunctionality of adult language: it is precisely the constructional categories of language, represented in system networks, which are grouped into metafunctions in SFG.

From Stage II onwards, '*realization*' is the generalized label, suggested by Halliday as an alternative label to the earlier '*exponence*', referring to the relationship between strata. We have seen that the realization relationship between semantics – interpreted as constructional formal meaning – and lexicogrammar in fact corresponds to the earlier notion of '*realization*' of the scale-&-category model, which was interpreted as being part of '*exponence*', and which was explained by Halliday as a relationship between formal categories (organized in systems) and formal items.

- [5] A fifth type of semiotic relationship discussed in this article has been identified on the basis of a number of higher-order systems which were proposed in SFG, towards the end of Stage II, and, especially, in Stage III: the development of the 'extra' interpersonal system of *SPEECH FUNCTION* (Stage II), and the models of discourse semantics, appraisal and the ideation base (Stage III). I have linked the development of these models to the abstract re-interpretation of the realization relationship in terms of 'metaredundancy', a notion brought into SFG from the theory of dynamic open systems. We have seen how this abstract concept of metaredundancy relations between the levels of a semiotic system corresponds to Hjelmslev's second-

order interpretation of the relationship of connectivity, lying at the basis of his recognition of second-order semiotics which involve multiple cycles of content–expression relations. In this vein, the higher-order systems proposed in more recent versions of SFG have been interpreted as ‘*connotative semantics*’, defined as the connotative content planes of semiotic systems which take another semiotic system (in this case, language) in itself as their expression plane.

Through a careful juxtaposition of Hjelmslev’s stratification scheme and the various models of different coding levels in SFG, we have been able to clarify what exactly can be identified as a ‘semantics’, within the design of SFG, and how this component is related to other components of language (especially ‘lexicogrammar’). The various competitors for a ‘semantic’ stratum in SFG have been specified as: (1) an ontological semantics—the level of ‘contextual meaning’ brought out in Stage I; (2) a constructional formal semantics—a level which was already identified in Stage I, but which became the major type of semantics highlighted in Stage II, and hence in ‘the’ ‘standard’ version of the stratified model in SFG; and (3) a connotative semantics—as the type of higher-order system which brought confusion in Stage II, viz. *SPEECH FUNCTION*, and the further, higher-order systems developed in Stage III.

The unclarity about how a ‘semantics’ is to be exactly defined in SFG – in semiotic terms based on Hjelmslev’s framework, which originally inspired the notion of ‘stratification’ in SFG – can be explained as due to a failure to recognize that Hjelmslev’s model is based on a “double distinction” (Hjelmslev, 1959/1954:44), i.e. on an interaction between two differentiating dimensions. This problem is already clear in Stage I, in Halliday’s scale-&-category model, which focusses on the relationship of ‘exponence’ as a mixture of realization and manifestation (comprising Hjelmslev’s connection). As we have seen, in this one-dimensional representation of levels, it is Hjelmslev’s relationship of manifestation which is highlighted. In Stage II, with the proposal of what has become the standard model of stratification in SFG, the focus shifts to the Hjelmslevian relationship of connection, and the model is based on an equally one-dimensional relationship between strata, called ‘realization’. The picture of ‘semantics’ relevant within SFG can be summarized by taking the standard model of stratification as a basis. It has been by extending the focus on relationships of connection that we have identified various types of ‘connotative semantics’ as distinct from the ‘semantics’ in the standard model, and by reconsidering the complementarity between relationships of connection and relationships of manifestation that we have identified this ‘semantics’ as constructional formal meaning, and as distinct from ontological meaning.

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